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AMERICAN ORIENTAL SOCIETY.

Proceedings at Boston, May 6th, 1885.

The Society was called to order in the hall of the American Academy, at twenty minutes past ten o'clock on Wednesday, May 6th, by the President, Professor W. D. Whitney, of Yale College, New Haven, Conn.

The minutes of the preceding meeting were read by the Recording Secretary, Professor Toy, and approved. The general order of proceedings was announced. Reports of the retiring officers were then presented.

The accounts of the Treasurer, Mr. Van Name, were referred to Messrs. Dickerman and John A. Paine as a Committee of Audit, and found correct. They are in brief summary as follows:

RECEIPTS.

Balance on hand, May 7th, 1884,	\$1,037.94
Annual assessments (98) paid in, \$490.00	
Sale of the Journal, 13.07	
Interest on deposit in Savings Bank, 40.84	
Total receipts for the year,	543.91
	\$1,581.85
EXPENDITURES.	
Printing of Proceedings, etc., \$169.98	
Paper, 180.00	
Expenses of Library and Correspondence, - 18.90	
Total expenditures for the year,	\$368.88
Balance on hand, May 6th, 1885,	1,212.97
The Bradley type-fund now amounts to \$994 19	\$1,581.85

The Bradley type-fund now amounts to \$994.12.

The Librarian, Mr. Van Name, reported that the Society had received from the Hon. Eugene Schuyler nine Arabic manuscripts, among them a beautifully written and illuminated manuscript of the Koran; from Mr. W. W. Rockhill a copy of the "Hundred Thousand Songs of Milaraspa," noticed in the Proceedings of the Society for October, 1884; and from the French Government the fourth volume of the Bhāgavata Purāna in the series of the "Collection Orientale." The other accessions were chiefly the regular exchanges. The total accessions amount to nine manuscripts, forty-five printed volumes, ninety-seven parts of volumes, and fifty-three pamphlets. The present number of

titles in the Society's library is, of printed books, 4,296; and of

manuscripts, 161.

For the Committee of Publication, Professor Whitney reported that the second half of volume xi. of the Journal was all in type. It contained articles on the Cypriote inscriptions of the Cesnola collection in New York, on the American Arabic Bible, on a Syriac Lectionary, and on the Greek stamps on the handles of Rhodian amphoræ, found in Cyprus, and now in the Metropolitan Museum of New York, by Prof. Isaac H. Hall; on the professed quotations from Manu found in the Mahābhārata, by Prof. E. W. Hopkins; on the unaugmented verb-forms of the Rig- and Atharva-vedas, by Prof. John Avery; on the northern barbarians in ancient China, by President W. A. P. Martin; and on the position of the Vaitana-sutra in the literature of the Atharvaveda, by Prof. Bloomfield. There remained to be printed the account of books received and the revised list of members, and it was hoped that all would be finished and distributed to the members in a few weeks.

On behalf of the Directors, the Corresponding Secretary, Professor Lanman, announced that Professors Short and Hall and Dr. Ward had been appointed a Committee of Arrangements for the autumn meeting, and that the same would be held at Columbia College, New York, on Wednesday, October 28th, unless the Committee saw fit to change place or time. The Committee of Publication of the preceding year had been reappointed. The Directors proposed and recommended to the Society for election the following persons:

As Corporate Members—

Mr. William Emmette Coleman, of San Francisco;

Mr. Adoniram Judson Eaton, of Plymouth, Mass.;

Mr. Abraham V. W. Jackson, of Columbia College, New York;

Dr. Henry A. Todd, of Baltimore;

Rev. William C. Winslow, of Boston;

Mr. H. B. Witton, of Hamilton, Ontario.

The gentlemen thus proposed were duly elected.

The President named as a committee to nominate officers for the ensuing year the Rev. Messrs. Dickerman and George, and Prof. Elwell. These gentlemen proposed the re-election of the retiring board of officers without any changes, and their proposal was unanimously ratified by the meeting. The names are:

President, Professor W. D. Whitney, of New Haven; — Vice-Presidents, Rev. A. P. Peabody, of Cambridge; Professor E. E. Salisbury, of New Haven; Rev. W. H. Ward, of New York; — Recording Secretary, Professor C. H. Toy, of Cambridge; — Corresponding Secretary, Professor C. R. Lanman, of Cambridge; —Secretary of the Classical Section, Professor W. W. Goodwin, of Cambridge; —Treasurer and Librarian, Mr. Addison Van Name, of New Haven; —Directors, Professor John Avery, of Brunswick, Maine; Professor Joseph H. Thayer, of

Cambridge; Mr. A. I. Cotheal, Professor Charles Short, and Professor Isaac H. Hall, of New York; and President Daniel C. Gilman and Professor Maurice Bloomfield, of Baltimore.

The Corresponding Secretary read the list of members who had died during the year, and gave some of the facts of their lives and relations to the Society. The deceased were as follows: the Honorary Members,

Professor Richard Lepsius, of Berlin; M. Adolphe Regnier, of Paris;

and the Corporate Members,

Mr. John W. Barrow, of New York; Mr. Porter C. Bliss, of New York:

Rev. James T. Dickinson, of Middlefield, Conn.;

Mr. George B. Dixwell, of Boston;

Rev. Adolphus Huebsch, of New York;

Rev. William Hutchison, of Norwich, Conn.;

Prof. Joseph William Jenks, of Newtonville, Mass.;

Prof. Lewis R. Packard, of New Haven, Conn.;

Hon. Stephen Salisbury, of Worcester, Mass.;

Mr. Charles Tracy, of New York.

Professor Lepsius was one of the first four honorary members of the Society, and was elected with Champollion-Figeac, Rosellini, and Sir Gardner Wilkinson, on the fourth of October, 1843 (at the sixth meeting of the Directors), during his absence on his first archæological journey to the Nile Valley. His great achievements in Ægyptology are a part of the history of our time. Regnier was the pupil and friend of Burnouf, and would have been his successor had he been willing to renounce his allegiance to the house of Orleans. His later years had been devoted to the publication of the collection, Les grands écrivains de la France; but by the fruits of his earlier labors, namely his work on Vedic grammar, and his edition, with translation and commentary, of the Rigveda Prātiçākhya (1856–59), he has merited well of Oriental students also. He succeeded Mohl as president of the Société Asiatique.

Mr. Jenks, son of one of the original corporators of the Society, Dr. Wm. Jenks, was born in 1808, and was one of the very few survivors of the men named on its first list of members. He graduated at Amherst College in 1829, and was appointed chaplain and professor of mathematics in the United States Navy. A voyage to Egypt and the Levant quickened his already awakened interest in Oriental studies. Resigning his commission, he devoted himself to his favorite pursuits under De Sacy. On his return he spent seven years aiding his father in editing the Comprehensive Commentary to the Bible, a popular work of wide circulation and important influence. In 1852 he was made professor of languages in Urbana University. The energies of his middle life, were devoted to an intense activity in writing and publishing

teaching and lecturing, and to editorial and bibliographical labors. He had a good practical knowledge of about thirty languages, mostly Oriental. He was ever ready to impart to inquirers from his rich stores of information, and to help them by suggesting schemes of study or methods and routes of travel. His interest in the Society was active, of long standing, and constant to the end.

Mr. Barrow was born in London in 1828, his father and the mother of Dickens being brother and sister. He was educated mainly at Heidelberg, and was a pupil of Tregelles and a personal friend of Tischendorf. Besides being a fluent speaker of the modern tongues of Europe, he was a thorough scholar in Hebrew, Chaldee, and the Talmud, and was deeply versed in New Testament criticism, a subject in which he was second to none in America save Ezra Abbot. He was a man of unusual business ability, of wide, discriminating, and disinterested charity, and altogether a very symmetrical and a great character.

Mr. Bliss was born in 1838. He made journeys of exploration

to Mexico and South America, and occupied positions in the United States diplomatic service. Later he followed journalism as a profession, and wrote also many important articles on biography and literature in Johnson's Cyclopedia. He was of remarkably varied attainments, and acquired languages with great ease. The best of his works is a study of the languages of the Gran Chaco Indians, published by the Argentine Republic. While in Paraguay in 1858, he was forced to submit to torture by the tyrannical Lopez, and his career throughout was a very eventful and adventurous one.

Mr. Dickinson, after a successful but brief pastorate in Norwich, Conn., entered the foreign mission service at Singapore in Eight years were spent in preaching and teaching, and in the study of the Chinese and Malay languages; then, by reason of ill health, he returned home, and lived in quiet seclusion at Middlefield, Conn. The account of the Malay language in Ap-

pleton's Cyclopedia is from his pen.

Mr. Dixwell was born at Boston in 1814. At an early age he entered commercial life, and went to Calcutta, where he became proficient in Hindustani. He was afterwards connected for many vears with the firm of Heard & Co. in Canton and Shanghai, and was a diligent student of the Mandarin dialect, which he could speak and write both in the business of the firm and in his intercourse with the natives. On his final return home in 1873, he became much interested in the investigation of superheated steam and of means for using it safely. He also wrote upon subjects of political economy.

Rabbi Huebsch was a learned Hungarian, very proficient in Hebrew, Arabic, and Syriac, who was called to the New York Congregation Ahawath Chesed in 1866, and became a great power for good among his people. He published a Hebrew translation of part of the Peshitto version of the Old Testament with a

Hebrew commentary.

Rev. Wm. Hutchison graduated at Yale College in 1854, and went out in 1858 to Constantinople to establish a mission in Turkey. The condition of his wife's health compelled him to return. In 1865 he became principal of the Norwich Free Academy, and filled this position faithfully and honorably till his death.

Professor Packard was born in 1836. He graduated at Yale College in 1856, and continued his studies at Berlin under Boeckh, Bekker, Haupt, and Kiepert. At the age of 30 he received his appointment as professor of Greek at Yale. The Transactions of the American Philological Association, of which he was president in 1881, contain a number of elaborate essays by him. In 1883 he was sent out as director of the newly founded School of Classical Studies at Athens, became very ill on the way thither, and died soon after his return home.

Hon. Stephen Salisbury, of Worcester, Mass., had been a member of our Society since 1860. He was one of the oldest members of the Massachusetts Historical Society, for forty-four years a member of the American Antiquarian Society, and for thirty years its president and principal benefactor.

Mr. Tracy graduated at Yale College in 1832, and achieved a

prominent position at the bar of New York City.

Reports of letters of interest to the Society were given, and some extracts were read. Dr. Toy told of the travels of Dr. Ward in Mesopotamia, of his successful explorations for sites favorable for archæological research, of the prospect of valuable finds hereafter, and of the sickness of his companion, Dr. Sterrett, at Bagdad. It was proposed that measures be taken to set forth to the proper authorities the desirability of establishing a consulate of the United States at Bagdad; and further, that a scheme be considered for the raising by England, France, Germany, and the United States of a joint purse for excavations, Turkey to be a partner without contribution, and the antiquities to be divided among the five parties.

With reference to his correspondence with Prof. Long and Dr. Ward, Prof. Hall reported as follows:

A letter from Prof. Albert L. Long, received just as I was starting for the meeting of the Society, states that the Greek MS. noticed by me in the Proceedings of the meeting at Baltimore in October, 1884, is now his property, and he proposes to collate it thoroughly. Also, that he has found a fragment of a Syriac MS. of the Gospels, containing a portion of Luke, written in fine large Estrangela, on stout vellum. He transcribed a few lines, which appear to me to be of the Harklensian version, though I have had no opportunity to compare. It is not Peshitto, but is in the style of the Harklensian, at least. He enclosed a scrap of parchment from a like MS. One side contains portions of Matthew xvi. 18, 19, 21, in the Harklensian Syriac version. The other side seems not to come from any portion near it; whence I conclude that the scrap is from a Lectionary (Jacobite). It seems to be the only bit of Harklensian MS. in the country. The writing is of the

splendid large Estrangela that was used for several centuries in the most luxurious MSS., and contains no certain marks of date. It is not recent, however. Prof. Long also adds that his letter to Dr. Bliss, mentioned in the Proceedings, was a hasty one, written in order to induce the purchase of the MS. when there was fear of losing it, and by no means intended for publication, or as the result of anything but cursory examination.

In March last I received a package of fragments of Syriac MSS. from Rev. Dr. W. Hayes Ward, which he had obtained from a monastery in the Tûr (he does not give either the name of the monastery or its exact locality), which are rather valuable as specimens of the writing than for other reasons. I have had time to examine carefully only two of them. Of these, one is a leaf from a Lectionary, in splendid Estrangela, of uncertain age, containing portions of lessons from Matthew, Luke. and John. This leaf was $15 \times 10\frac{1}{2}$ inches in dimension, written in two columns, 23 lines to the column, letters 1 inch high, with the long strokes reaching 1 inch farther above and below. One side contains the quire number, 6. The rubricated title to one of the lessons is present: viz. "Lesson of the [1?]1th Sunday after Easter, at vespers. From Luke." The figure I have bracketed and questioned appears to me to be 10, and the whole number 11, but the letter which represents it is almost washed away. But the doubt is small. The following lesson is Luke xvi. 19-24, middle of the verse, where the fragment ends. The version is Peshitto, with some unimportant variations from the printed text.

Another fragment is written in old Estrangela, apparently of the eighth century, parchment leaf $9\frac{8}{8} \times 6\frac{5}{8}$ inches, two columns to the page, 27 to 29 lines in a column. One column and a large part of the next are taken up with the end of a homily, whose subscription, in red, reads: "Ends the homily on the love of poverty, which is the thirty-seventh; and it has stichi one thousand one hundred and seven;" but the number for "one hundred" is defectively written, and might be merely the letters, used numerically, for 41, making the number of stichi 1041+7, if that were not rather an absurd way of writing. The expression in question is the connective waw, the letter mim, and a defective olaf.

Following this is one line of dots and dashes, and then the title of the Letter of King Abgar to Jesus, the letter itself, Jesus's reply, and part of a sentence of narrative, with which the fragment ends. In Hebraica for April last is published the text, but with some errors both of transcription and printing, and consequent errors in the translation as there given. The text of these letters is quite different from that in Phillips's Doctrine of Addai; but on recourse to the Greek text as preserved in Eusebius's Hist. Eccles., i. 13, I find that the matter there and that of this fragment stand related to each other as original and very close translation, with a few slight differences. The title to Abgar's letter is different in the two, that of the letter of Jesus is the same; and other variants are found either in different MSS. of the Greek text of Eusebius or in Latin translations of it. Were it not for the fact that the Syriac includes the beginning of the sentence which follows the letter

I may add here, with reference to the note in Migne, tom. xx., p. 122, note 61, about $0i\chi avi\eta\varsigma$ $vi\delta\varsigma$, Vohaniæ filius, Vohame, Euchame, $0i\chi\dot{a}\mu\sigma\nu$, etc., that the Syriac has **25.302**, which means 'the black,' though it may be a proper name. (Migne omits it in his text: but see the note above referred to.) It is the common Peshitto N. T. word for 'black,' and apparently akin to the Greek $ai\chi\mu\delta\varsigma$ etc., though $\epsilon i\chi\dot{a}\mu a$ (or - $\mu\nu\nu$, or - $\mu\eta\varsigma$) would be a natural Greek reproduction as a proper name.

However, since this work with Eusebius, I have received a note from Prof. Theodor Nöldeke (to whom I had sent a copy of the Syriac), which says that this MS. text is the same with that found in Cureton's Ancient Syriac Documents, except some unimportant variations, and is a part of the Syriac translation of Eusebius. Cureton's work I knew of, but could not find it, either in New York or in Cambridge.

Of the other fragments, the most remarkable is a folio (two leaves) of vellum, each leaf rather over $16\times11\frac{1}{4}$ inches in dimension. It is a service-book, written in most magnificent monumental Estrangela, lines running across the whole page, twelve lines to the page, letters $\frac{1}{2}$ inch high, with long strokes extending $\frac{1}{4}$ inch farther above or below. Unfortunately it is very badly damaged by water, and most of it only decipherable with great difficulty. One ornament, just below a line wholly occupied with the words for 'Hosanna, Hallelujah,' is in green and yellow, of the well-known woven pattern, followed by a rubric of the last for vespers, of a day or feast whose name is mutilated. What follows, to the end of the leaf, is mostly decipherable, but just enough is obscured to deter me from giving it the necessary time.

Next are three leaves filled with ecclesiastical rules or precepts, with numbers in the margin, rubricated places, and here and there a Greek word reproduced in Greek uncials in the margin. These are on vellum, $11\frac{1}{2} \times 7\frac{1}{2}$ inches in dimension, writing in rather old Jacobite, two columns to the page, and 39 to 41 lines to the column. As a whole they are much damaged, but a large portion of them is easily legible.

Another vellum fragment is 15 inches wide, but only the top of the leaf is entire. It is much damaged, but written in a beautiful old Jacobite, nearly like the Estrangela, but more like the Beirût MS., and may date from the 9th century or a little later. It is written in three columns

to the page; and it is as regular a piece of writing as I ever saw, showing scarcely any of the marks which distinguish manuscript from type. It is so much damaged that I have not yet tried to read it.

Then follows another vellum fragment, written in two columns to the page, each column 12 inches long and 3½ inches wide; but the leaf is mutilated. The top margin is 2 inches wide, and the outer margin 2½. The inner side and the bottom are cut or torn away. It is from a service book for saints' days, with proper rubrics. Written in old Jacobite, much like the last, in larger characters, and only a little less finely executed. One of the few entire rubrics present is "Supplication of [the feast of] my Lord James (or Jacob)," with the number 2 in the margin. The column contains 32 lines.

The rest are on paper, written in Jacobite, and not very ancient. Two of them are from service-books, in which the rubrics mark the priest's part and the people's response; the rubric being usually only the word "priest" or "people." Another pair of leaves is in roughly written Jacobite coarse script, faded and mutilated, in which a hasty look shows supplications to the "Lamb that was once offered, Lamb that was bound for the sacrifice of the Messiah, Redeemer of the world," etc. Another fragment of a leaf, in much finer and better Jacobite, and apparently older than the other paper fragments, is from a prayer-book, but not a single whole line is present.

With reference to his paper in the second half of the eleventh volume of the Journal, Prof. Hall would add the following note.

Since writing my article for the Journal on the American Arabic Bible of Drs. Eli Smith and C. V. A. Van Dyck, Mr. Benjamin E. Smith, son of Dr. Eli Smith, has received from Beirût a communication respecting matters connected with that Bible and its translation, which demands some attention. These documents were a Report of Dr. Eli Smith on the Arabic Version of the Scriptures, dated March, 1844, made to the Mission authorities or to the Mission in the field; another Report by Dr. Smith on the Translation of the Scriptures, then in progress, dated April, 1854; and a document compiled by the present librarian of the Theological Seminary of the Syrian Protestant College at Beirût, and consisting largely of extracts from written accounts furnished by Dr. Van Dyck relative to the Bible translation: in which document, however, it is not possible to distinguish always between the compiler's own work and the quotations from Dr. Van Dyck. The two reports of Dr. Smith deserve to be printed entire, as they supply a picture of the state of things not elsewhere to be had.

It is clear that in the Old Testament Dr. Smith left a MS. translation of the Pentateuch, the prophetical books of Hosea, Joel, Amos, Obadiah, Jonah, Micah, Nahum, and 52 chapters of Isaiah. Likewise, he had printed 16 chapters of Matthew, besides translating the entire New Testament. It is also true that these printed chapters of Matthew were destroyed; but it is the opinion of the librarian that all Dr. Smith's MSS. of all the work that he did on the translation of the Bible are preserved in the Mission Library, "under lock," in tin boxes, and highly

valued by the Mission. If this opinion is correct, the story that Dr. Smith's MS. translation of the New Testament was destroyed is untrue, and grew out of the fact of the destruction of the printed sheets of Matthew-which, of course, were destroyed only because of their following a Greek text different from the ignis fatuus of the textus receptus. I have written to Dr. Van Dyck to ascertain the exact state of the case, and shall doubtless be able before long to present it, correctly and clearly. If possible, the two reports of Dr. Smith, abovementioned, and the accounts formerly written out by Dr. Van Dyck and now in the Mission library, should be printed in extenso. When I was in Beirût, all such matter was inaccessible, and I think it was not generally known by the missionaries that such documents were in existence. At all events, I inquired pretty faithfully, and was answered in a way such that I could interpret it only in that manner. The fifteen years or more that had intervened since the first printing of the Bible had been far more productive of myth and oblivion than was desirable.

Besides the papers above mentioned, an important pamphlet relative to the electrotyping of the Arabic Bible in New York was published by the American Bible Society in 1865, entitled "The Arabic Scriptures." Especially valuable are I. Preamble and Resolutions adopted by the Syrian Mission at the annual meeting held at Beirût, March 30, 1864; II. Letter of Dr. W. H. Thomson to the American Bible Society, dated Beirût, August 30, 1864; and III. additional statements, in each of which is a valuable historical item or two, though much of the matter is declamatory; and [IV.] estimates of cost, and formal action of the authorities of the American Bible Society. The addresses at the Bible Society Anniversaries, about that time, were eloquent and of great value in their place, but they add no facts further than the sources already mentioned.

Mr. Rockhill writes from Peking that he is renewing a suggestion formerly made by Dr. Williams that the State Department make over to the Oriental Society a lot of valuable Chinese books given by the Imperial government to the United States government, and which have lain stored and unused for years. He announced his intention of sending a parcel of Tibetan manuscripts to our library, and reported the establishment of the Peking Literary Society, which, with such members as Arendt, Baber, Bushell, Edkins, and Martin, was likely to do good work in promoting Oriental and literary studies in the Far East.

Mr. Charles Theodore Russell, Sr., of Cambridge, said that he was confident that if the facts were only brought to the attention of the Secretary of State in the proper manner, they would receive due and prompt consideration, and that the works in question would be made accessible to scholars, in the library either of the Oriental Society or of Congress. On motion of Prof. Goodwin, it was voted, after discussion, that a committee of three, consisting of the President and two others to be appointed by him, and with power to add others to its number, be authorized to consider this matter, and take such steps as it should deem fit to bring about

the desired result. The Chair appointed Mr. Russell, and Dr. Peter Parker, of Washington.

Mr. Russell moved that the same committee be authorized to consider the question of the establishment of a consulate at Bagdad and take whatever action might seem judicious and feasible in the premises. The motion was adopted.

The miscellaneous business was finished at 12.30, and the Society proceeded to the hearing of communications. A recess was then taken from 1 to 2 p. m. It became evident later that an evening session would be necessary; and so, after discussion, it was voted that this be held in the Hall of the Academy, beginning at 7.30. Papers 12–17 were presented in the evening. The following communications were presented at the meeting:

1. On Naville's Identification of the city Pithom; by Rev. L. Dickerman, of Boston.

Mr. Dickerman explained at some length the reasons which led him to question the identity of the store-city Pithom, stated in Exodus (i. 11) to have been built by the children of Israel, with that place of which the remains have been found by the Egypt Exploration Fund expedition under Naville, at Tel-el-Maskhutah.*

The evidence of ancient authors shows that Clysma was the port on the Arabian Gulf at the eastern end of the canal (river of Ptolemy or of Trajan), and that Heroöpolis was a town on that canal, 84 miles from Clysma. It becomes then an interesting question, where the head of the gulf was. Rosière has argued elaborately that since the beginning of the historical period it can only have been where it is now, at Suez. Lepsius denies any upheaval during historic time, on account of the remains of an ancient canal traceable for some distance north from Suez. Explorers agree that there are no evidences of a recent sea-bed in the region. If the land from Suez to Lake Timsah has been upheaved since the Exodus, it would be strange if the Wady Tumeilat was not upheaved too. But if the Wady had been ten feet lower than it is now, the canal would have flooded the whole valley with water from the Nile. If the "young man" stated by Lucian to have sailed from Clysma to India found salt water 9 miles from Tel-el-Maskhutah, there must have been an upheaval which raised a few square miles smoothly, without jar, crack, or historical record.

The Septuagint substitution of "Heroöpolis in the land of Ramses" for the "Goshen" in the Hebrew of Gen. xlvi. 28 need not have been from superior geographical knowledge of the location of a city, never large, which centuries before had ceased to exist. Rosière and others regard it as indisputable that the LXX. mistook the Hebrew verb horoth 'direct' for the city-name $\tilde{\eta}\rho\omega\nu$. The Coptic version puts Pithom instead of Heroöpolis: whether from evidence that Pithom was the place of meeting is questionable; they simply knew that $\tilde{\eta}\rho\omega\nu$ was no fit translation of horoth. It is not to be supposed that they changed the name for the mere pleasure of using a synonym.

^{*}The Store City of Pithom and the Route of the Exodus, by Edouard Naville. London. 1885. 4to.

Mr. Dickerman proceeded to describe the monumental evidences on which Naville bases his claim of identification. On the inscribed monuments discovered by him, he finds such expressions as these: "the good recorder of the abode of Tum;" "the head of the prophets of Tum;" "this abode was erected to Tum;" and other the like. But in all these texts, pi-Tum is the abode or house or sanctuary of Tum, and never the city. On all the monuments of the time of Ramses, the time of the oppression, there is no mention of a city Pithom. The name Thuku, on the contrary, is always accompanied in these inscriptions either by the hieroglyphic determinative for 'city' or by that indicating a region inhabited by foreigners. We have no right to spread the name of the temple over the city, especially as the city has a name already. No "city of Pithom" is mentioned save in the badly mutilated 10th and 13th lines of the Ptolemean tablet called by Naville the "stone of Pithom." As a parallel case, Maspero (1877) criticises the claim of Brugsch to have found at Tanis the city of Ramses, because of finding a temple there to the deified Ramses, or a Pi-ramses, and denies the right of extending the name of the sanctuary to the city, still more of identifying a Ramses-Tanis thus obtained with the Ramses of Ex. i. 11. An argument valid for the shores of Lake Menzaleh is equally good in Wady Tumeilat. Before Naville writes with so much confidence of "Heroöpolis-Pithom," he should show in some intelligible connection the words em tima pi-tum, or pi-tum nai.

The Thuku of the monuments is assumed by Naville to be the biblical Succoth. Doubtless the Egyptian th is sometimes transcribed by the Hebrew samekh, and the Egyptian u or ut equivalent to the Hebrew oth. But philologists—e. g. Revillout in the Academy of April 4th—are not enthusiastic in the identification of the two names.

Hence, while not impossible, it is also not proved, that Heroöpolis, which is now Tel-el-Maskhutah, was once the city of Pithom, also the city of Succoth, in the eighth nome of Lower Egypt.

In conclusion, Mr. Dickerman called attention to the value in other respects of the results of the exploration, which make the first work of the Fund worthy of grateful remembrance.

2. On Naville's Identification of Pithom; by Rev. Wm. C. Winslow, of Boston.

Naville's identification of Pithom with Tel-el-Maskhutah has been disputed by only one great Egyptologist, Lepsius, and that when he was in failing health and had only imperfect evidence before him. He admitted the disclosure of a store-city, but believed it to be the Raamses of Ex. i. 11—equally as important, perhaps, as Pithom (cf. Academy, Feb. 28, 1884).

Naville's Pithom is accepted as the Pithom of Ex. i. 11 by Brugsch, Revillout, and Pleyte, reflecting German, French, and Dutch opinion, and by Ebers, Poole, Maspero, Rawlinson, Sayce, Tomkins, and others. If the unearthed city is not Pithom, let us dig further to find what it is.

Mr. Winslow reviewed some of the principal arguments. Naville's discovery agrees with the description of Pithom as a "treasure" or

"store-city" and as a "fortified" city. The treasure was grain, and the walls were of unusual strength. The Pithom bricks also agree with the ones described in Exodus: some are made with straw, some of Nile mud without any straw, and some with fragments of reed—the "stubble" of our version (Ex. v. 12). Only a few have the royal stamp, but this is natural considering the vast number used. In the heart of the land, the bricks were not always stamped (Birch's Wilkinson, i. 36, ii. 297). Tomkins has shown that it was uncommon to use mertar with crude brick, and yet this is just what Naville found, and it harmonizes with the tradition of Ex. i. 14.

The employment of the Israelites for constructing a fortified commissary depot on the frontier for the outgoing and returning armies of Rameses II. was a natural and advantageous one. The identification of Naville's Pithom with Heroöpolis and Ero by inscriptions found on the spot locates Pithom at Maskhutah; and the identification of Pithom with Patumos and Heroöpolis has been made, for example, by Birch (Rawlinson, ii. 326). Naville derives ' $H\rho\dot{\omega}$ from ar, a term applied to the keeper of the storehouse; and Tomkins thinks that HPOY represents Egyptian aru, 'storehouses.' That Succoth (Thuku) was the civil name and Pithom the sacred name of the same place is a view which would agree well with Papyrus Anastasi vi., which places Pithom in the region of Succoth. Thuku was first the name of the district, and then the name of the capital thereof.

The canal of Rameses, according to Herodotus (ii. 158, ed. Wesseling), began near Bubastis and ended "at Patumos, in [on or at] the Red Sea." Even now the marshes east of Maskhutah become lakes at certain seasons, and these, it is probable, were identical with the end of the northwestern arm of the sea.

A Latin MS. of the tenth or eleventh century, found at Arezzo (see Academy, March 22, 1884), tells of a lady's pilgrimage from France to Egypt and the Holy Land, about 370 A. D. This MS. says that Pithom was on the border, and adjoined Ero or Hero, formerly Heroum, where Joseph met his father; and that the pilgrim went from Hero to Raamses, about twenty miles distant. The LXX. made Joseph meet his father at Heroönpolis (Gen. xlvi. 29). It thus appears that Heroönpolis and Ero were placed at the same locality as late as the fourth century of our era. And Pithom, Succoth, Patumos, Heroöpolis, and Ero, juxtaposited as we have seen, are supported, at least in name, by the two Latin inscriptions found by Naville in situ.

As for the monuments, the colossal hawk of black granite with the oval ring of Rameses II. identifies that monarch as builder of the city, since nothing found antedates him. The statue of Ankh-renp-nefer identifies that person as "the lieutenant of the district of Succoth, the good recorder of Tum," etc. The papyri already cited say that the governor of the district was "Atennu," and this very title Naville has found on this statue.

The statue of Aak, unearthed at Maskhutah, addresses "all the priests who go into the sacred abode of Tum, the great god of Succoth." The image of a priest in white limestone witnesses that it was set up

"in the abode of Tum, the great living god of Succoth." The priest is called "head of the store-house" and "official of the temple of Tum of Succoth." A sandstone fragment was found containing "not only the cartouche of Rameses II., but also the name of the region in which Pitum was constructed, Thuku." The sacred name Pi-Tum ('sanctuary of Tum'), or Pa-Tum, occurs fifteen times, and the civil name, Thuku or Sukut, twenty-two times on the material disclosed by Naville. Various passages of the "Stone of Pithom" bear on the question. Mention is made of Tum as "god of Succoth," and of "the city (or town) of the temple of Tum." Line 10 connects Pi-Tum with the canal of Ptolemy. Line 28 speaks of "the city," because it it there needless to repeat the proper name. In line 13 occurs Pithom-Succoth, and both names have the sign determinative of a town—which agrees with the view that they are sacred and secular synonyms.

3. On the Holy Houses from the Hebrew Scriptures; also from the original texts of the Chronicles, Ezra, Maccabees, Septuagint, Coptic, Itala, Chaldee, Syriac, Samaritan, Talmud, and leading Rabbis; by Prof. T. O. Paine, of Elmwood, Mass.

Mr. Paine said that the work here described was announced in the Proceedings of this Society for May, 1876, and would be issued in the coming autumn by Houghton, Mifflin & Co. (40 full-page plates, folio, and 129 figures scattered through the printed text); that his investigations and making of drawings had continued to the present date. He said that, according to his restorations from the Hebrew of Kings and Ezekiel, the outer court of the temple was six hundred cubits square, and the inner court was four hundred cubits square; in both cases including the court walls. He said that in his first studies, dating from Dec. 26, 1852, and published in 1861, he had made the inner court 400 cubits square inside instead of outside of the walls.

He stated that the ark of the flood was a gradine form, similar to forms discovered in the regions of the cuneiform ark-texts; that the ark had a water-tight hull, floating three decks of cabins, the above-water portion growing smaller and smaller upwards in three stories, like the chambers of the singers, altar, etc., in Ezekiel. That the ark, temple, and house of the king were of the same height, 30 cubits, the upper portion in each case being subdivided into three stories, with windows.

That the tabernacle of Sinai was identical in design with tents discovered on the ruins of ancient Nineveh, and like the cabin or home tent of the Arabs of to-day: the vertical walls being the *mishkan*, and the sharp roof, the 'ohel; these two terms being also applied to the whole structure.

4. On the "thesis" of Mr. Whitehouse, affirming Cairo to be the Biblical Zoan and Tanis magna; by Prof. J. A. Paine, of Tarrytown, N. Y.

Mr. Paine held this thesis (laid down and defended at the last preceding meeting of the Society: see its Proceedings for Oct., 1884; Journal,

vol. xi., pp. ccxv. fg.) to be wholly invalid, every statement, consideration, and argument brought forward in its support being either misrepresentative or incorrect; and he proceeded to refute it in detail and at considerable length. A much abbreviated abstract of parts of his paper is as follows:

I. As regards monumental evidence, it is in general passed unnoticed by Mr. Whitehouse, reliance being placed instead on Christian, Jewish. and Arabic traditions, wrongly construed. This is the direct opposite of the scientific and critical method of our day, which puts the monuments above all tradition, even above the Greek and Roman histories. Now the site of San, with its city, is called Zoan by the monuments. This is one of the names given to it not by Egyptians only, but also by Assyrians and Hebrews. The biblical "field of Zoan" is clearly identical with the Egyptian sokhet Z'an, field or territory of Z'an, chief place of the fourteenth nome of Lower Egypt, and thus the San of the present day. This sokhet was the 'low country' of the nome, the marshy or pasture lands or Bukolia, low in comparison with the desert on the south-east, and adapted for grazing. The biblical "sadeh of Zoan" has nothing to do with "the technical term of Abulfeda, Saïd" (Whitehouse), because Sa'id is only a modern Arabic name for Upper Egypt on both banks of the Nile, later even than Antoninus Martvr (whence it could not well have been translated 'campus' by him), and because the two words have no etymological connection, their resemblance existing only in their transliterated forms. The origin of the name Zoan is Hebrew, as that of Zar or Zor for the site is Phœnician; the one is a sign of Israelitic occupation, as the other of Tyrian commerce. The Egyptians themselves were accustomed to style it the "City of Foreigners," and to append the determinative sign indicating the presence of strangers. The Egyptian monuments and records know nothing of any Zoan at or near Cairo.

II. As regards Christian testimony, this "thesis" misconstrues the narrative of Antoninus. The Nilometer visited by him is made to be the one "at Rhoda." But it is well known that this was first constructed in A. D. 716, a century and a half after Antoninus, being an Arabic work, needed by the inhabitants of the new city of Cairo-a fact which Mr. Whitehouse might have learned from "Macoudi," whom he quotes in the connection. In reality, the traveller briefly sketches a journey down the Nile. The "Cataracts of the Nile" visited by him are our "first cataract," between the island Philæ and Syene or Aswān. His "Nilometer" is the ancient and celebrated one at Elephantine, over against Aswan. Dropping down the river, he comes to Esneh, at his time the double town of Latopolis and Contra-Lato. Its old Egyptian name was Seni. Apparently, the Coptic Christians preferred to explain the name Latopolis in their own way, instead of accepting the Egyptian and Greek derivation from the fish Latus; and so ascribed the building of Lato and Contra-Lato to the daughters of Lot. It matters little whether Antoninus records his own interpretation or the local opinion on this point; in place of Latus we have Lot. He also confuses the Babylon of Letopolis, down the Nile, with one of these two towns on

either bank at Esneh, simply because he was a stranger, and his information was insufficient to let him distinguish between Latopolis and Lētopolis. Further down, at the boundary separating the Thebaïd and the Heptanomis, he came to the city Antinoë, or Antinoöpolis, built by the emperor Hadrian in honor of his favorite, Antinous, drowned here; its ruins still mark the spot of the suicide and of the splendid Roman town. Directly opposite, the pilgrim encountered Tanis, the Tanis of Upper Egypt. Lying under the shadow of Hermopolis magna, it was not of considerable size then. The site is still called Taneh, and the mountain on the west Gebel Taneh. Probably in ancient times it was a place of much extent and importance, as the Pe-sennu or Se-sennu frequently mentioned in Egyptian records. Antoninus journeyed through its field or territory on his way down to Memphis. Perhaps he deemed this the campus Taneos of the Vulgate; yet, if he did, it was because he had never visited the true Field of Tanis magna at San in the Delta, and, not being acquainted with the greater, attributed all he knew to Then he continued his voyage on the west of the Nile down to Memphis. Of this city he has nothing to describe, save the wonderful things presented in a certain church transformed from a temple. So far as his account goes, he did not cross the Nile to Old Cairo; and as for Cairo as Tanis magna, it had not yet been founded in his day. From Memphis he journeyed ever downward and northward, by way of Athribis, to Alexandria.

III. As regards Jewish testimony, the propounder of the "thesis" misconstrues the words of Josephus. This author calls Tanis a "townlet" (πολιχνην) purely descriptively, on account of the reduced importance of the place in Roman times. If he had meant to contrast it with another greater Tanis, he would have called it Tanis μικρα. Having touched at Alexandria, and having been so strongly impressed as to characterize this city as "inferior only to Rome in magnitude," he naturally belittled other places in the region, to him unknown. But the remains of the Roman period lately excavated at San tell a more truthful story, showing the place to have been no mean city even in the days of Titus; and this, the best testimony, is to be believed. The site of Old Cairo was occupied successively by Letopolis, Babylon (built by Cambyses, B. C. 525), Fostāt (Mohammedan): the site has always borne some well-known name, and not Tanis magna; and there are no ancient remains to warrant the hypo-thesis of such a predecessor. Sān, on the contrary, has always borne the title "magna:" the Egyptians called it "the great city of the lower land," or "the great city;" the Greeks gave it the same epithet-thus Strabo, "the Tanitic nome, and in it a city, μεγαλη Τανις" (xvii. 1. 20); his other Tanis, near Hermopolis, was Tanis μικρα; the whole land had no third; no Tanis of any sort or size ever stood at or near Cairo.

Again, the words of Benjamin of Tudela are equally misconstrued. His friends and editors acknowledge that what he has to say of Egypt is what he heard, not what he saw. From the Tigris, his description leaps to China, falls back to India, and then jumps over to Aswān up the Nile—a flight of the mind, not an actual journey. Even the gross

inaccuracy of his Egyptian distances shows that he was not recording personal observation. He makes no claim that the Zoan he mentions is the biblical Zoan; and the non-biblical Zoan of his legend is not difficult of explanation.

IV. As to many well-established matters, the "thesis" and history are sadly at odds. The task is here attempted of reversing events long past. That Tanis-Sān was the source of Egyptian dynasties, and the residence of Egyptian kings, is beyond controversy. When Manetho and the monuments tell us that the XVIIth, XVIIIth, XXIst, and XXIIId dynasties were Tanitic, they mean that these had their capital at Tanis in San; and the record is not open to dispute. That Ramses II. made Sān his residence from about the time of the oppression, and continued to reside there till the day of his death, is equally undeniable. That Menephtah abode here till the date of the Exodus is the burden of every indication, etc., etc. The many inscriptions and tablets, the great examples of architecture, the magnificent works of art, found among the ruins of San, prove the presence at the site of numerous rulers of Egypt, from the sixth to the thirtieth dynasty. That Tanis at San was also the great port of entry for ancient Egypt, the busy and rich commercial emporium of the country, is not a subject of question or debate. To gainsay such a fact as this is merely to impeach one's own sense.

V. The author of the "thesis" concludes with one supreme argument: "Dr. Birch has shown that Tanen was a name for Memphis B. C. 1300. Meneptah II. had entrenchments drawn to protect the city of On, the city of the god Tum, and to protect the great fortress of Tanen (i. e. Memphis)." In other words of the same author elsewhere: "Jablonski's fairness compelled him to give weight to the objection that Zoan was the Greek Tanis at San-el-Hagar, the Peluthim of the Talmud, although it is now known that Zoan was Memphis, the Tannen of the papyrus of Meneptah." "Tanis is a nominative formed from Tanin. The Talmudist followed the Tannen of the papyri." "Zoan-Tanis-Memphis was at the entrance of the Delta." The argument is this: The city Tanis (Zoan), at Cairo as a suburb of Memphis, was the Tanen of Menephtah, by identity of name.—This is an unmitigated blunder. The Tanen referred to by Menephtah was no city, but a title of the deity Ptah! The added "Memphis" in parenthesis (not in the text) is an explanatory equivalent of "fortress," not of "Tanen." The "papyrus" spoken of is really one of the walls of a court to the temple of Amon at Karnak, bearing an inscription relating to the invasion of Egypt by the Greeks under the XIXth dynasty, in the reign of Menephtah. The passage in point, according to the translation of Dr. Birch, runs thus:

> "To guard Heliopolis, the city of the god Tum; To protect Memphis, the fortress of Tanen."

Brugsch's rendering is as follows:

"[He caused entrenchments to be thrown up]
In order to protect the city On, the city of the sun-god Tum,
And in order to shelter the great fortress of Tanen (i. e. Memphis)."

Such parallelism of expression is very common: as On or Heliopolis is the city of the god Tum, so the great fortress or Memphis belongs to the god Tanen. Tanen is the most frequent epithet or alternative appellation of Ptah, and carries the sense of 'shaper, creator, father of beginnings;' even the compound title Ptah-Tanen occasionally appears. The great fortress referred to is the fortification for which Memphis was famous, and which is often put by synecdoche for the city itself: thus, the Great Bulwark, the Strong Seat, the City of the Wall, the Town of the White Wall (R. P. ii. 94; viii. 10, 12, 142); it is also called by Herodotus the Castle, and the White Castle (iii. 13, 19).

5. On the Canal of Joseph and other local Allusions to Middle Egypt in Genesis xlix.; by Mr. F. C. Whitehouse, of New York City: presented by the Corresponding Secretary.

Relying upon Arabic and other tradition, Mr. Whitehouse presented the following paraphrase of verses 22–27 in the "Blessing of Jacob:"

"Joseph is, as the canal which bears his name, a fruitful branch of the Nile, even a fruitful branch by a lake, whose branches run over the wall of the Libyan Desert. The archers, even as the hot arrows of the sun, have sorely grieved him, and shot at him, and hated him. But his bow, curving in the vast sweep of its waters, abode in strength, and the arms of his hands were made strong by the hands of the mighty God of Jacob (from thence is the shepherd, the stone of Israel).* Even by the God of thy father, who shall help thee; and by the Almighty who shall bless thee with blessings of heaven above, blessings of the deep sea that lieth under, blessings of the breast, and of the womb. The blessings of thy father have prevailed above the blessings of my progenitors into the utmost western bound of the everlasting hills of the desert: they shall be on the head of Joseph, and on the crown of him that was separate from his brethren."

Professor Toy observed that there is no reason to suppose that this Genesis passage refers to anything but an Israelitish tribe. The Hebrew word rendered "branch" is never used of a stream of water.

6. On Superstitious Customs connected with Sneezing; by Mr. Henry C. Warren, of Boston.

The varying superstitious customs and beliefs respecting sneezing are rehearsed at considerable length, and with many references to the literature of the subject, by Tylor, in his *Primitive Culture*, i¹., pp. 88–94. His observations extend to the Zulus, Polynesians, and Moslems, as well as to the Indo-Europeans; but it is only with the latter that I at present directly concern myself. The exclamations, "God bless you," "Gott hilf," "Felicità," are current even at the present day. The question of this paper is, Why is it commonly the custom for the bystander rather than for the sneezer to repeat the formula?

With reference to this question, I would call attention to a Buddhist

^{*} An explanatory gloss, equivalent to "from this Fayoum-Avaris went out the Hyk-Sos, who befriended Israel." See Proc. of Soc. of Biblical Archeology.

"birth-story," which, if it helps us to no conclusive answer, is at any rate interesting as showing the antiquity of these superstitions. This "birth-story" is one of the many tales which Buddha told of his fortunes in previous existences, and is found in Fausböll's Jātaka, ii. 15 ff. Fausböll has also translated the story proper, but not the introductory incident. I give the gist of it in an abridged translation from the original Pāli. The Bodhisatta, or one who was to become Buddha in a subsequent existence, may be rendered by 'Future Buddha.'

"One day, as the teacher [Buddha] was seated preaching in the Royal Monastery, in the midst of the four classes of his disciples, he sneezed. The monks raised a shout and made a great uproar, saying, 'May the Blessed Lord live! May the Buddha live!' The noise was such that it put an end to the sermon. Said the Blessed One to the monks, 'Mendicants, in the case of a sneeze does living or dying depend on the saying of "Live"?' 'No, indeed, Lord.' 'Mendicants, you shall not say "Live" on hearing a sneeze. Whoever shall say it, is guilty of a sin requiring confession and absolution.'

"Now it came to pass that the common people, when they heard the monks sneeze, used to say, 'Live, reverend sirs.' The monks had the bad manners not to reply. The people were offended, saying, 'How is it possible for the priestly followers of the Çākya prince not to reply when "Live, reverend sirs," is said to them?" The matter was announced to the Blessed One. Said he, 'Mendicants, one could not wish for more superstitious people than are the unconverted. I consent, mendicants, that if any one of you is saluted with "Live, reverend sir," he shall reply, "Long live."

"The monks then questioned the Blessed One. 'Lord, when did the custom of saying "Live" and replying "Live" arise? Said the Teacher, 'Mendicants, the custom of saying "Live" and replying "Live" arose in ancient times.' He then related a story."

"The Future Buddha and his father Gagga attempted to pass the night in a house haunted by a yakkha or ogre. This yakkha had leave to eat all persons who entered except such as said 'Live' on hearing a sneeze, and such as said 'Live thou also' on hearing a 'Live.' He lived on a pillar. Thinking, 'I will make Gagga sneeze,' he sent forth small dust. The dust entered Gagga's nostrils. He sneezed. His son, the Future Buddha, did not say 'Live thou'; so the yakkha came down to eat him. The Future Buddha thought, 'This must be the one who made my father sneeze, the yakkha who eats every one that neglects to say "Live" on hearing a sneeze.' So he addressed the first stanza to his father:

'O Gagga, live a hundred years, And twenty others added on; Let no pisācas* eat me up; Live thou a hundred autumns yet.'

^{*} Observe that the Future Buddha says pisācas and not yakkhas. The pisācas, or goblins, were a race of supernatural beings apparently lower in the scale of existences than were the yakkhas (Skt. yakṣa) or ogres.

The yakkha, having heard the Future Buddha's words, said to himself, 'I cannot eat this man, because he has said "Live;" but his father I will eat.' So saying, he went to the presence of Gagga, who, seeing him approach, thought, 'This must be the yakkha that eats all those who do not say "Live thou also." I will say so.' So Gagga addressed the second stanza to his son:

'Live also thou a hundred years, And twenty others added on; Let the pisācas poison eat; Live thou a hundred autumns yet.'

The yakkha, on hearing these words, returned, saying thus to himself: 'These two cannot be eaten by me.'"

Then the Future Buddha reprimands, tames, and converts the yakkha, and the story is brought to a close.

At first thought the English "God bless you" might seem to be uttered from purely altruistic motives by the bystander on behalf of his friend the sneezer. But, on the other hand, there are modern Hindu practices which indicate that the bystander (as contrasted with the man whose sneezing he hears) is alarmed for himself at the unfavorable omen, and acts on his own behalf accordingly. Thus a Hindu will desist from a journey, or an important piece of business, if he hears some one sneeze. (See *Panjab Notes and Queries*, June, 1884, p. 101, and Feb., 1885, p. 79.)

Now the chaffy Pāli story seems to contain a sound grain of suggestion, which may help to reconcile the two apparently opposing superstitions last noticed. I assume with Herbert Spencer (Principles of Sociology, i. 244-5) that involuntary actions like sneezing and vawning are often "regarded as showing that some intruder has made the body do what its owner did not intend it to do." As, then, the sneezer is possessed by an uncanny spirit, his own spirit being perhaps driven out, the superstition considers him helpless. This explains why he neither prays nor deprecates the spirit on his own account at first. The bystander is afraid, because he is in the presence of a malign influence. For this reason he tries to come to the rescue of the sneezer's natural self with some phrase like "God bless you" or "Jīva," which, although worded as if solely in behalf of the sneezer, is really motivated by the bystander's alarm for himself before the threatening evil spirit. The sneezer, then, with some such phrase as "Thanks, the same to you," or "Tvam pi jīva," recovers his power over his natural self, and accordingly says in his own name to the evil one, "Begone from us both."

Thus, in our Jātaka, it is not the sneezer Gagga, but the bystander, the Future Buddha, that speaks first. He says "Live" or "God bless you;" and, from the third line of the stanza, his motive seems to be, "Because otherwise I fear that the pisācas that have hold of you will eat me." Gagga's answer, "Live also thou," seems hardly more than what the Germans reply in the like case: namely, "Danke." By this formula he shows that he is again in his right mind, and his friend then no longer fears that the pisācas will attack him next, for they are

already banned. Then Gagga, by his recommendation that the pisācas eat poison, so to say, snaps his fingers in their face.*

References to these superstitions are not infrequent in Sanskrit. Böhtlingk and Roth (s. v. kṣu) cite other allusions, from Cāurapañcāçikā 11, MBh. xiii. 7584, etc. There is also a story in the Kathā-Sarit-Sāgara, chap. 28, in which a sneezing superstition plays a rôle. See Tawney's Translation, i. 253.

For a man that has sneezed or yawned, Āçvalāyana (Gṛḥya-sūtra iii. 6.7) prescribes the repetition of a pious text. Here the sneezer feels conscious that he is not wholly overcome by the evil power that caused the sneeze, and so does something himself to drive it off.

Apparent exceptional cases, finally, in which people seem to regard sneezing as a lucky omen, may be accounted for on the supposition that they came to misunderstand the true significance of the "God bless you"—namely, as a weapon against an evil influence—and imagined it to be a congratulation.

Prof. Whitney remarked that the earliest mention known to him in Hindu literature of superstitious practices in connection with sneezing is found in the Jāiminīya-Brāhmaņa, at ii. 155, and reads as follows: tam evain santam devā abhito nişedur : ayam na eko vīro 'bhūt sa ittham nyagāt kva bhavāma iti : sa ho 'vāca na vāi vidma yo (mss. ya) 'bhūvam iti kim iti cukṣūṣāmi vā ity : atha ha sma tataḥ purā kṣutvāi 'va mriyante: tam ho "cuh kṣuhi jīve 'ti tvā vakṣyāma iti sa ha cukṣāva tam ha jīvē 'ty ūcus sa jijīva : tasmād idam apy etarhi cukşuvānsam āhur jīve 'ti ; 'Him, being in this plight, the gods sat down about: "he hath been our one hero; he hath thus sung (?); where are we?" He said: "we do not know what I have been :"-"why?"-"I want to sneeze." Now up to that time, people used to die when they sneezed. They said to him: "sneeze; we will say 'live' to thee." So he sneezed; they said "live" to him; he lived. Therefore also at the present time they say "live" to one who has sneezed.' This passage certainly supports the ordinary view, that it is the sneezer himself who is regarded as in danger, and whom his friends save by a good wish or blessing. The altruistic character of the proceeding is sufficiently taken away by the implied understanding that he will do the same for them in a similar case: it is a social exchange of kind offices.

Professor Hall observed that sneezing was a good omen among the Greeks and Romans. So even in the Odyssey, xvii. 545. The Loves sneeze at a lover as a sign that he is to be happy, in Theocritus, vii. 96; compare Catullus, xlv. 18; and also Theocritus, xviii. 16, the epithalamium of Helen.

7. On some Manuscripts of Ptolemy's Star-catalogues; by Prof. Isaac H. Hall, of New York City.

Professor Hall exhibited eleven photographs of manuscripts of Ptolemy's Star-catalogues, brought by Dr. C. H. F. Peters, of the Litchfield

^{*} For the tone of the Pāli expression visam pisācā khādantu, compare the words of the tortoise to the cowherds, yuṣmābhir bhasma bhakṣitavyam, Hitop., p. 112. 6.

Observatory of Hamilton College, some two years ago, from Italian libraries, whither he had gone for the purpose of collating, and establishing the text as accurately as possible for the use of astronomers. Nine of these were in the original Greek, in cursive script of various ages, one a Latin translation by Gherardo Cremonese, and the remaining one an Arabic translation. As Dr. Peters himself gave a long explanation of the MSS., and of his work on Ptolemy's Catalogue in general, at the meeting of the National Academy in October, 1884; and as he published in the proceedings of the Institute of Venice, some two years ago, a brief account of the material extant for a critical edition of the starcatalogue, with particular remarks on the special value of the Arabic translation, it is hardly worth while to go further into particulars here.

The specimens were the following: Greek Codices: Codex Venetus Græc. cccii., fol. 390 b; ccciii., fol. 142; cccxi., fol. 90; cccxii., fol. 201; cccxii., fol. 104 (or 204, or 304—obscure); cccxiii., fol. 218; Codex Laurentianus Græc. i., fol. 102; xlvii., fol. 133 b; xlviii., fol. 97 b; Cod. Laurent. Latin. xlv., fol.?; Cod. Laurent. Arab. clvi., fol. 77 b.

8. The Greek Stamps on the handles of Rhodian Amphoræ, found in Cyprus, and now in the Metropolitan Museum of New York; by Prof. I. H. Hall.

Gen. di Cesnola found in Cyprus some thirty complete amphoræ, all with stamps on the handles, besides a number of handles that were broken off. The vessels were chiefly used as packing casks. Their height is about two feet and a half, and their largest diameter a foot or more. They would not hold liquids unless coated on the inside with pitch; remains of figs and other fruit have been found in them, and sometimes salt. The stamps on the handles vary somewhat in their purport. Sometimes they have the eponym, the name of the (Doric) month, the name of the manufacturer or owner, and an emblem; but they vary so much in the character of their legends that each amphora or handle must be taken by itself. The stamps on the New York specimens are either circular or rectangular; but others occur of oval shape. They are sometimes quite easy to read, but more often rather difficult.

The paper presented in detail the description of the stamps, and gave their inscriptions, with explanations. It is printed in full in the Society's Journal, vol. xi. (pp. 389-398).

9. On a Greek Inscription from Tartûs or Tartosa in Syria; by Prof. I. H. Hall.

This inscription is one found on a marble tablet in the Serai at Tartûs by Mr. J. Loytved, Danish consul at Beirût, and general business man of the British schools under superintendence of Mrs. Mott. The squezze was sent by Rev. H. H. Jessup of Beirût to Rev. R. D. Hitchcock, president of Union Theological Seminary, who passed it over to Prof. Francis Brown, who passed it over to me. Unfortunately a large portion of the inscription has perished; all that remains being the right hand side of the slab on which it was cut. How much is gone it is impossible to say; but probably from one-third to one-half of the whole is missing. The

ends of the lines are all there, except of the last. How many more lines there were originally, below, it is also impossible to say. Nor is it possible to fill out the lines and get a connected reading of the whole.

The squeeze is a direct cast, showing in relief (only) the letters that are intaglio on the stone; but it is a fine cast, and shows a beautiful piece of lettering. The length of the fragmentary lines, excluding the last, which is but a scrap, varies from about eleven to twenty inches. The letters are an inch high, very regular and beautiful, and of the late Fyzantine type. The alpha has the V-shaped cross-bar, the sigma has the rectangular C-form, the omega is like an inverted mu, the xi has the uncial form, as does also the delta, and in some measure (except the cross-bar) the alpha. The omicron is pointed at the top. Ligatures occur frequently. For ov occurs the common ligature; $\eta\varsigma$, ωv , $\nu\omega v$, $\mu\eta$, $\nu\eta\gamma$, $\mu\varepsilon$, $\mu\varepsilon$, and $\eta\mu\varepsilon$ occur as ligatures, made so by using a perpendicular stroke as common to two letters.

The inscription is an ecclesiastical one. Above are two heads, one of a male, the other of a female, saint. If these two heads are all the upper ornament, then about one-third of the inscription is gone. If there were three heads originally, then about half of it is gone. The faces proper of these heads are each about two and a half inches high by two inches wide; but the aureole or other ornament makes them each about five inches in diameter. Hanging at the neck of the woman is what appears to be a bit of a chain; at the neck of the man is a square ornament with a little cross.

The space between the lines of the inscription varies from threequarters to half an inch.

The following is the inscription; marking those letters which are united in ligatures by a horizontal line above them.

- 1... ΟΥΖΑΧΑΡΙΟΎΤΑΙΣ ΠΡΟΣΚΥΝΗΤΑΙΣ
- 2. . . . ΕΩΣΤΗΜΕΝΗΤΙΜΗΠΡΟΣΕΝΗΝΗΚΤΑΙ
- 3.... ΤΟΥΑΓΙΟΥ ΠΡΟΦΗΤΟΥ ΖΑΧΑΡΙΟΥΠΡΟΝΟΙΑ
- 4. . . . ΠΙΣΚΟΠΟΥ ΤΟΥΤΟ ΔΕΤΟΥΛΑΜΠΡΟ
- 5. . . . ΤΩΝΙΕΡΩΝΚΑΝΟΝΩΝΔΥΝΑΜΙΝ
- 6. . . . Η(οτ Ι)ΣΠΡΟΣΦΕΥΓΟΝΤΑΣ ΠΑΡΑΜΗΔΕΝΟΣ
- 7.... ΣΤΗΣΟΦΕΙΛΟΜΕ ΝΗΣ ΤΟΙΣ ΕΥΚΤΗ
- 8.... $N(or\ I)$ ΩΝΠΟΙΝ \overline{H} ΣΩΦΡΟΝΙΖΟ \overline{M} Ε \overline{N} ΩΝΤΗ
- 9.... ΧΕΙΝΔΕΚ ΑΙΠΑΝΗΓΥΡΙΝΠΡΟΣ
- 10.... ΗΡΙΟΥΟΙΚΟΥΠΕΝΤΕΕΦΕΞ ΗΣ
- 11. . . . ΥΤ* Ι (or N, or H?) HME PA . . .

In the last line there are marks as if an A might have preceded the Υ . The last A is assumed, though only its angular top is visible, which can scarcely have belonged to a Δ or Λ . The breaks in this last line are provoking, because they render it difficult to determine whether *iota* adscript was used or not: a matter that becomes important in the case of Hoinh in line 8. In the last line there is also visible at the end the top of a perpendicular stroke, of which nothing can be made. It is uncertain whether the last line is to be read (supplied) as A Υ TH HMEPA or A Υ THI HMEPAI (of course TA Υ TH is to be thought of as a possibility for the first word of the two).

The fracture of the left side of the stone is irregular; line 2 beginning one letter farther to the left than line 1, line 3 beginning one letter still farther to the left, line 4 even with line 2, line 5 even with line 1; and then the fracture slopes pretty regularly to the right, till the first letter of line 11 comes directly under the seventh letter of line 1. The ends of the lines are nearly in the same perpendicular line, except lines 1 and 2, which end about an inch and a half sooner than the rest; and line 11, which is a mere fragment.

It seems pretty plain that the general purport of the inscription has reference to the penance by which the worshipers at the shrine or church of the holy prophet Zacharias were chastened, in accordance with the provision made by the bishop, by virtue of the power of the sacred canons. When the substantial offering was brought, and the worshipers took refuge in no excuse, and paid the debt, and were chastened by the penance, they were to attend the solemn assembly, or procession, to the house of worship, five times in succession on the same day.

Of the matters that seem probable, in attempting to supply the missing parts of the inscription, it seems that $\tau o \bar{\nu} \dot{a} \gamma i o v \pi \rho o \phi i \tau$ may be pretty certainly supplied at the beginning of line 1, $\dot{\epsilon}$ - at beginning and $-\tau \dot{a} \tau o v$ in the word at end of line 4, $-\rho i o v c$ in the word at end of line 7, $\epsilon \dot{v} \kappa \tau$ - at beginning of line 10. Beyond that nothing seems easily fixed.

10. A brief Account of some recent Assyriological Publicacations; by Prof. D. G. Lyon, of Cambridge, Mass.

Without attempting to make a complete report, Prof. Lyon described some of the more important recent undertakings. The Zeitschrift für Keilschriftforschung, under editorial charge of Drs. Bezold and Hommel, has completed its first volume (Leipzig, Otto Schulze, 1884), and has issued parts 1 and 2 of vol. ii. Vol. i. contains articles in German, French. English, and Latin, furnished by the editors and Schrader, Savce. Guyard, Oppert, Strassmaier, Dvořák, Amiaud, Jensen, Pinches, Halévy, and Nestle. Some of these articles have been published separately. The one by Dr. P. Jensen in vol. i., no. 4, and vol. ii., no. 1, makes a neat and valuable brochure of 91 pages, entitled De Incantamentorum Sumerico-Assyriorum Seriei quae dicitur "Šurbu" Tabula Sexta (Monachii, 1885). Herr Heinrich Zimmern issues as doctor-dissertation Babylonische Busspsalmen umschrieben, übersetzt und erklärt (Leipzig, Breitkopf and Härtel, 1885). This essay will soon appear in enlarged form as vol. vi. of the Assyriologische Bibliothek (Leipzig, J. C. Hinrichs), and gives promise of being one of the most interesting of that series.

Dr. J. N. Strassmaier has issued the fifth part of his Alphabetisches Verzeichniss der Assyrischen und Akkadischen Wörter, etc., pp. 769-960, and one part more will complete the work (Leipzig, J. C. Hinrichs). In the absence of a lexicon, that by Norris being incomplete, antiquated, and out of print, Dr. Strassmaier's Verzeichniss has special value as a concordance. The Assyrian material in the Calwer Bibellexikon or Biblisches Handwörterbuch has been furnished by Prof. Friedrich Delitzsch, and adds very greatly to the value of this work (pp. 1036, Calw

and Stuttgart, 1885). Students of Assyriology are still waiting for Prof. Delitzsch's long-promised Assyrian lexicon, but biblical students have from his pen a glossary of the Assyrian words used by Ezekiel, in Baer and Delitzsch's edition of this prophet (Leipzig, 1884).

Dr. Eduard Meyer has published vol. i. of his Geschichte des Alterthums, about 175 pages of which are devoted to Assyrian and Babylonian history (Stuttgart, Cotta, 1884). The publication of part 1 of Prof. Paul Haupt's Babylonisches Nimrodepos places in the hands of students the original of the larger portion of the great poem commonly known as the Izdubar Epic (Leipzig, J. C. Hinrichs, 1884). A little older than the above works is Dr. Hermann Hilprecht's Freibrief Nebukadnezar's I. (Leipzig, 1883), a doctor-dissertation, which the enthusiastic young author intended to develop into larger form.

In England, the most important recent publication is the second half of vol. v. of the Cuneiform Inscriptions of Western Asia, plates 36-70 (London, 1884), by Sir Henry Rawlinson and Mr. T. G. Pinches. The grammatical papers and discussions of texts and history given by Mr. Pinches in the Proceedings of the Society of Biblical Archwology are always valuable. His colleague in the British Museum, Mr. E. A. Budge, is joint author of some of the papers, and has also given as vol. v. of the "By-Paths of Bible Knowledge" a short account of Babylonian Life and History (London, The Religious Tract Society, 1884).

The paper read by M. Josef Halévy before the sixth international Oriental Congress, at Leiden in 1883, has appeared, under the title Aperçu Grammatical de l'Allographie Assyro-Babylonienne (Leiden, E. J. Brill, 1884). M. Halévy denies the existence of a Sumero-Akkadian language, and contends that the many cuneiform texts which are generally believed to contain such a language are only a secret writing of the priests. The aperçu is an attempt to explain this hieratic writing in its word-formation and its grammar. This is one of the greatest questions connected with cuneiform study, and M. Halévy, standing for a long time alone, won allies in the lamented M. Stanislas Guyard and more recently in M. Henri Pognon. The posthumous second part of vol. ii. of M. François Lenormant's Les Origines de l'Histoire appeared in Paris last year.

In America, Prof. Paul Haupt has contributed to this year's January number of *Hebraica* (Morgan Park, Ill., The American Publication Society of Hebrew) a valuable paper on Assyrian vowels. He has also given in the April number of the same journal a minute commentary on the confinement at Nineveh of a Kedarene prince, related in the annals of Assurbanipal. *Assyriology: Its use and abuse in Old Testament Study* is the title of an entertaining and scholarly address by Prof. Francis Brown (New York, Charles Scribner's Sons, 1885).

Professor Lyon also announced as in press a work of his own entitled an Assyrian Manual, an aid to persons who wish to begin, with or without a teacher, the study of the Assyrian language. The manual will contain Assyrian texts, partly in cuneiform character, but mostly transliterated, and also paradigms, notes, glossary, and lists of cuneiform signs.

11. On the Garo Language; by Prof. John Avery, of Brunswick, Maine.

The Garos* are a rude aboriginal tribe occupying the western extremity of the range of hills which forms the water-parting between the valleys of the Brahmaputra and Surmā in the British-Indian province of Assam. Their neighbors on the east are the Khasis—likewise an aboriginal tribe—while on the other three sides they are bounded by a population consisting mainly of Assamese and Bengalis. They number about 109,000, and cover an area of 3653 square miles.

The Garos first became known to Europeans near the end of the last century, in connection with the newly acquired administration of eastern Bengal by the East-India Company. The acquaintance, however, was chiefly with parties who came down to the plains for trade or to plunder defenseless villages. It is only since 1866, when a British officer was detailed to reside in their hills, that their land has been surveyed and their characteristics have been accurately observed.

The Garo language is one of a numerous and loosely affiliated group of tongues, known as Tibeto-Burman; and its nearest kindred are the Pani-koch, the Kachari, the Deori-Chutia, and the Tipura. It was first reduced to writing by American Baptist missionaries less than a score of years ago, and for this purpose the Bengali characters were used. In 1873, Rev. T. J. Keith published a small Garo and Bengali-English dictionary, and in the following year a grammar of 75 pages. These works are valuable, but abound in minor defects. They, together with a Garo version of a portion of the Scriptures, constitute nearly all our means for obtaining an insight into the structure of the language, without a visit to the hills themselves.

Twenty-eight characters were borrowed from the Bengali to represent Garo sounds. The number, however, is not sufficient to indicate all minor differences of pronunciation. The letters are: vowels, $a, \bar{a}, i, u, e, o, anusv\bar{u}ra, visarga;$ consonants, k, kh, g; e, ch, j; t, th, d, n; p, ph, b or v, m; y, r, l; sh, s; h. These are sounded for the most part as in $devan\bar{a}gar\bar{i}$, but a is heard as in fall and th as in thus. The absence of the sonant aspirates is noteworthy, and is a feature shared with Tibetan and other members of the group. The letters k, ch, t, p, y, l do not occur as initial in true Garo words. The visarga is not true to name, but denotes a sudden cessation of utterance.

Garo substantives have no grammatical gender, and sex is indicated by special words—as mande, 'man,' mecik, 'woman'—in the case of human beings, and by added words for 'male' and 'female' in case of the lower animals. All other objects are genderless. Plurality is denoted by an added syllable, which is usually rāng. This is commonly omitted when numeral words accompany the substantive. A singular feature of the language is that when a numeral occurs with a

^{*}Since the meeting, I learn from a printed extract of a letter to Dr. Rost from Shillong, that the local government of Assam is doing much for the investigation of the native languages. A Tipura vocabulary is printed, and grammars of the Garo and Miri are soon to appear.

substantive a generic particle is prefixed to the former, varying according to the nature of the latter: thus, for human beings $sh\bar{a}k$ must be used, as $bish\bar{a}$ $sh\bar{a}k$ gni, 'two children;' but $macch\bar{a}$ mang gni, 'two tigers.' So for round objects one uses rang; for money, $kh\bar{a}p$, phel, or gang; for boxes, tables, and the like, ge—and so on.

Garo nouns have declension by suffixes, but these are loosely attached to the base and may be omitted whenever the case is clear from the context. They cause no euphonic change in the base and are the same for both numbers. In the plural they follow the plural sign. The declension of *shang*, 'village,' will illustrate the whole subject.

```
SING.
       Nom.
                                    'a village.'
                shang
       Acc.
                shangkho
                                    'a village.'
       Inst.
                shangci
                                    'with a village.'
                shangn\bar{a}
       Dat.
                                    'to a village.'
               (shangoni
                                    'from a village.'
       Abl.
               shangonikho 🕽
       Gen.
                shanani
                                    'of a village.'
                                    'in a village.'
                shango
       Loc.
                shangonā
                                    'into a village.'
               | shangci or -cinā |
                O shana
                                    'O village.'
       Voc.
                                    'villages.'
 PLU. Nom.
                shangrāng
                                    'villages.'
       Acc.
                shangrāngkho
                                                   etc., etc.
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The general plan of this declension accords with that of the Dravidian tongues of Southern India and of the Scythian family in general. All declinable Garo words have a uniform declension. If two such words stand in the same case, the last only takes the suffixes. Since no stemforming suffixes or internal vowel-changes are required in forming Garo substantives, any part of speech can be turned into one, provided the sense admits, by simply appending the proper terminations. Compound nouns are formed with great readiness and from a variety of elements.

Adjectives are declined or not according to the rule of position just given. They show no agreement in gender. They have no comparison in the Indo-European sense: but to express the thought that one object possesses a quality in a less degree than another, the first word is put in the dative, followed by the particle bāte, 'than,' and the second noun follows with the adjective, to which is appended a suffix bātā or beā. Thus, uā shangnā bāte iā shang canbātā, 'than that village this village is small.' To express the superlative, one has only to use the word signifying 'all,' and say 'than all villages this, village is small.' Adjectives are readily turned into substantives or verbs.

The Garo has the usual complement of pronouns, excepting the possessive and the relative. The former is supplied by the genitive of the personal pronoun, and for the latter a participle or a verbal noun is commonly used. The Bengali relative je is sometimes borrowed, but other constructions are preferred. All the pronouns, except that of the first person, form the plural and are declined just like nouns. The first

person, $\bar{a}ng\bar{a}$, forms its plural by change of base, and has a twofold stem, the one being inclusive and the other exclusive. Thus $\bar{a}cing\bar{a}$ is 'we' including the person addressed, and $cing\bar{a}$ is 'we' excluding him.

The structure of the verb is in general very simple, but not incapable of some nice discrimination of thought. It has but one voice, the active; and to express passivity, the verb in the causative form is used impersonally, the subject being made the object: thus, to express 'the rice is eaten,' a Garo would say mikho cāātā, lit. 'it causes to eat the rice.' There is no distinction of number in the verb, nor of person except in the imperative. The three tense-relations, present, past, and future, are discriminated by suffixes added directly to the root without change of the latter. Past near at hand and past remote are distinguished by separate forms. Progressive action may be indicated in each tense by a particle eng, from $\bar{a}ng\bar{a}$, 'become,' inserted before the tense-ending. The verb has an indicative, imperative, and a rudimentary conditional mode, though these are not distinguished by special mode-signs. It has also two derivative conjugations, a causative and a negative. There is one infinitive and three participles, two present and one past. One present participle is used only in a conditional sense. The inflection of an, 'give,' will illustrate these statements.

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Indicative. Present, āngā, etc., anā, 'I, etc., give.'
Near past, āngā, etc., anāhā or anjak, 'I, etc., gave (recently).'
Remote past, āngā, etc., anāhācim, 'I, etc., gave (long ago).'
Future, āngā, etc., angen, 'I, etc., shall give.'
Conditional. Past, āngā, etc., angencim, 'had I, etc., given.'
Imperative. nāā, etc., anbo, 'give thou, etc.'
uā, etc., ancinā or ancang, 'let him, etc., give.'
Infinitive. annā, 'to give.'
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Participles. Present, anode, 'if giving.'

anoā, 'giving.'

Past, ane, 'having given.'

Causative. $\bar{a}ng\bar{a}$, etc., $an\bar{a}t\bar{a}$, 'I, etc., cause to give.'

Negative. $\bar{a}ng\bar{a}$, etc., $anj\bar{a}\bar{a}$, 'I, etc., do not give.' etc. etc.

Each of the above forms acquires a progressive sense by the use of the particle eng; thus, $aneng\bar{a}$, 'I am giving,' etc.

Compound verbs are extremely common in Garo, not only the sorts usual in English, but the two following unusual kinds: 1. When the idea of number is to be emphasized, a numerical particle may be inserted between the root and tense-ending of the verb, thus forming a sort of agreement between it and its subject or object; 2. The words called prepositions or postpositions in other languages are, when united with a verb, infixed in Garo. Thus, a Garo would say, not "forthcoming," or "coming-forth," but "comeforthing."

The structure of the Garo sentence is very simple. It has the inverted order, the verb invariably coming at the end. A substantive or pronoun modifying another one usually precedes it, while an adjective as commonly follows—in which case the adjective, and not the substantive, is declined. Adverbs precede the words they modify, and

prepositional words usually follow their cases. Nouns of agency often take before them the same case that the verb entering into their composition would have taken if standing alone. Relative clauses—seldom occurring—precede antecedent clauses.

The Garo vocabulary has already borrowed much from the Assamese and Bengali, and the rate of foreign addition will probably increase as the people become more civilized and trade more freely in the plains. It is not unlikely that at some future time the language will be entirely displaced by Aryan speech, as has already happened with more than one rude tribe of India; but when that will occur, if ever, we are not in a position to conjecture.

12. On Dr. Burnell's Argument in regard to the Date of the Mānava-dharma-çāstra; by Prof. E. W. Hopkins, of Bryn Mawr, Penn.: presented by the Corresponding Secretary.

In the preface to the translation of Manu begun by Dr. Burnell and completed by the writer, the latter intimated that the views expressed by Dr. Burnell in regard to the date of this law-book were not held by himself. He wishes at present to explain his grounds for objecting to Dr. Burnell's argument.

If we summarize the reasons inducing Dr. Burnell to assume the date he did in his Introduction, we find that they are the following:

- 1. a. The Sūtra-period of Sanskrit literature extended from circa 600 to c. 200 B. C. The work, being a metrical cāstra, cannot therefore be earlier than the first or second century B. C. b. Because Medhātithi is first mentioned in 1200 A. D., he must have lived about 1000 A. D., and the latest date is therefore about 500 A.D., because it is impossible that the earliest commentator came nearer than 250 or 300 years to the date of the work itself, and Medhātithi is, as we know, not the very first commentator. c. The style and language is that of the epic; the text resembles that of metrical rituals, which were chiefly composed in the early centuries A. D. d. The matter contains much that is foreign to the original Sūtras. The dialogues are in the style of the Purāṇas. The philosophy is Sāmkhyan (dates of which lie between 300 B. C. and 150 B. C.), so that the earliest date would be about the first century A. D. As this system of philosophy was supplanted by the Vedanta in the seventh and eighth centuries A. D., we have 100 A. D. and 700 A. D. as the terminus ab quo and ad quem respectively.
- 2. a. The character of the work aside from this proves it is late, for we find "Çiva is god of the Brahmans but Viṣṇu is god of the Kṣatriyas" (sic), and in i. 10 we have Viṣṇu as incarnate deity; this is a point of contact with the epic. b. But epic poetry is popular, not meant for priests. Therefore this work was not for priests. But the Brahmans would only have written it for a king, therefore it must have been written for a king.
- 3. What king? Pulikeçi; because he founded the West Cālukyan dynasty, which was the chief dynasty of the time, and this king belonged to the Mānava-gotra. The work could have been written for no one but a powerful king, and in a time of peace. These conditions are

filled by Pulikeçi; the place is, therefore, limited to his capital, Kalyānapurī, and the time to his reign, i. e. about 500 A. D.

4. The author was a northerner, because he speaks of persons not knowing Sanskrit.

The result of the argument is this: The date of the text is between 100 and 500 A. D. The work is a popular manual written by a northern Brahman for the benefit of king Pulikeçi at Kalyāṇapurī.

Objections. As the writer does not believe any of these statements, he thinks it well to give his reasons in full, taking up each of the arguments in turn.

- 1. a. The date. Granted that the limits of the Sūtra-period may be defined as closely as Dr. Burnell assumes, it does not follow that the Cāstra-period did not overlap the Sūtra-period. At the same time that the Brahmans used the Sūtra (which is nothing but a technical handbook), the popular form in easily understood verse may have existed for the benefit of the laity. b. Because Medhātithi is first mentioned in 1200 A. D., it is not thereby proved that the latest limit of the work is 500 A.D., for we do not even know that the commentators preceding him were not contemporaneous. But granting that when he says "pūrve" he means commentators long since deceased, we do not know how long. Within 500 years after Medhātithi we find three or four later commentators—that is to say, the extreme limit or latest date is also not at all certain. c. The "epic style" is poetry. The Mānava text is "rhythmic prose," which, as Bradke has pointed out, is quite different. The first is really poetry, the second is merely an attempt to put prose into a form likely to be remembered. These two do not necessarily belong to the same era. But if they did, who knows the terminus ab quo and ad quem of the Epic? d. The statement that the work contains matter foreign to the Sutras is incorrect except in chapters i, and xii. Now these (especially the first) were probably later additions to the completed work. The duty of kings (chapter vii.) is an integral part of the Sūtras: e. g., cf. Apastamba; this is the only part really foreign in Dr. Burnell's view. The chapters i. and xii. are at the extremities of the work, where late additions are usually found, and do not of themselves affect the intrinsic worth of the main portion.
- 2. a. It is not stated that "Çiva is god of Brahmans," etc.; this is a mistake. The Viṣṇu quotation is in book first, which, as the commentators themselves admit, is not part of the original work. It is probably taken from the Epic, where it occurs several times. b. Because the Epic was "popular," it is not thereby proved that the Çāstras were; and, though this is probably the case, yet it seems absurd to assume that all the minute directions for the Brahman student and rites of purification and special rules for the ascetic were written solely for a king, who had nothing whatever to do with them. In fact, in the Epic, the kings are generally wofully ignorant of just these rules, and always have to be instructed in them.
- 3. It is entirely a gratuitous and unfounded assumption to claim that the work must have been written for a king. If it were written like the Epic for a special king, it would contain, as the Epic does, refer-

ences in the vocative to the king. But the assumption goes against all we know of Castra development. The very expression "composed for a king" seems absurd. It is putting the development of the Sutra literature back to the Hindu conception of a promulgated Çāstra without antecedents. We might just as well assume Manu as the "author." Everything shows us that there was no special author. Nor does it seem a happy conjecture to select Pulikeci as the king for whom the work was composed. He is only one of many kings of his dynasty, and in no wise to be preferred in this respect to others. The writer has shown in his article on "Manu in the Mahābhārata" that many kings claim to belong to the Mānav(y)a gotra and yet use other law-books: in fact, do not seem acquainted with that of "Manu" at all, though their contemporaries may allude to him. Why select Pulikeçi I., any more than his father or sons? "It must have been written in peaceful times," Dr. Burnell says; but Pulikeçi I. was always at war (cf. his history as given in the inscriptions). Again, even assuming him to be a king for whom the work was composed, we do not know with any certainty the date of Pulikeçi I. Again, this king was a Cālukya. Now when the later Cālukya inscriptions quote verses from the law-book, they quote from Vyāsa's law rather more than from Manu: i. e. they attribute the verse in regard to stealing to any sacred authority indifferently, just as other kings do. If the work was specially written for this dynasty, it must have been of little account with them. Finally, as to the place: granting all denied above, the capital was Kalyāṇapurī only for a limited time, so that the place would even then be dubious.

4. Its author is not proved to be a Northerner come to the South to civilize the country (as Dr. Burnell assumes), in spite of "his" allusion to those who speak Sanskrit. For we read in the Mahābhārata of "Northern Mleechas," i. e. of those who do not speak Sanskrit.

Résumé: Just as prose Sūtras show *çlokas*, so *çloka*-Çāstras are nothing but the popular easy form overpowering and driving out the Sūtras. There is no reason for rejecting the development from a Sūtra in this argument of Dr. Burnell. We cannot judge the age of the work by its latest portions. We have no grounds for narrowing the date to the time of Pulikeçi I. The writer does not think that Dr. Burnell's Introduction gives any light at all on the problem.*

13. Remarks upon the Origin of the Laws of Manu; by Prof. W. D. Whitney, of New Haven, Conn.

^{*} In regard to the suggestion of Max Müller, in his review of this work (Academy, Jan. 3), that Dr. Burnell's Introduction does not contain all his collected data, the writer would state that Dr. Burnell's MS. was clearly written and contained numerous additions in the shape of slips and notes subsequently added—in none of which, however, was any hint given of further grounds to support his theory. The same reviewer has pointed out that, though it were proved to be the case that the priests of Pulikeçi belonged to the Mānava-çākhā, there would still be no ground for assuming that these priests possessed a Mānava-dharma-çāstra, or the preceding works of the same school.

Professor Whitney spoke in substance as follows: As the subject of the authorship of the Manavan law-book has been brought up for discussion by Professor Hopkins, I will add a few further words upon it. With Mr. Hopkins's rejection of Burnell's date, and of the reasoning upon which it is founded, I fully concur, deeming the question of period not less an open one than before this last attempt at its settlement. But also the question as to the connection of the work with a Mānavan Vedic school and its sūtras appears to me equally undetermined. When the suggestion of such a connection was first made (by Weber, and, apparently independently, by Müller), it was a very acute and creditable one, and marked a distinct stage of progress in our comprehension of the history of Indian literature. It was widely accepted, and has even become the popular view among scholars. I find myself quoted in its favor in Burnell's Introduction-not because I have contributed anything to its establishment, but because I reported it in a summary sketch of Sanskrit literary history.

The doctrine in question includes two elements. First, a recognition of the fact that the dharma-çāstras, or recent general law-books, are a natural development out of the old sūtras as handed down in the schools of Vedic study. This is by far the more important and valuable element; and it is so well supported by considerations of various kind that it seems as firmly established as anything can be in this department of knowledge. Then, second, that the coincidence of the name Manava, belonging to this particular law-book, with the name of a certain recognized Vedic school, points to a derivation from that particular school mānava meaning 'of the Mānavans,' and not, as usually understood, 'of Manu.' This was all very well as a conjecture; but, to win a higher character, it needed to be backed up by some amount of positive evidence, derived either from the traditions of the school or from the lawbook itself. And none such appears to be forthcoming. The grhyasūtra of the Mānavans, on the one hand, has recently come to light, and has been worked up by Bradke, who furnishes a full account of it in the Z. D. M. G. (vol. xxxvi., 1882, pp. 417-477); and, with the best good-will to the contrary, he is obliged to confess that he can find no sign of any relationship between the two works. Then, on the other hand, there is nothing in the association of the modern law-book with the epithet mānava or the name Manu to constrain us to seek a historical basis for such designation. Attribution of authorship, in Hindu literary history, proves nothing at all, unless in the absence of any indication whatever to the contrary-if even then. The traditional explanation of the name is altogether sufficient. Manu (as shown in detail by Professor Hopkins in his article "Manu in the Mahābhārata") is a legendary being, appealed to rather more frequently than any other, beginning even with the time of the Brāhmaṇas, when something is to have a show of authority given it. He is cited in the various sūtras and cāstras, just as Yama and others are cited: and this, not because there is a Manu's law-book in existence—for the citations are in general not to be brought into any connection with the work so called: on the contrary, it appears to be because of such citations that there comes to be a Manu's

law-book. It might have been expected that some treatise would be attributed to Manu, just as to Yājnavalkya, to Vasishta, to Vishnu, and so on. And the manner of its association is pretty clearly read in its own account of its origin. There is a versified dharma-cāstra, of considerable antiquity among the treatises of its class. It quotes "Manu" here and there, as the rest of them do, showing that its constructors laid no claim to an exclusive Manu-authorship for it. It is put, then, apparently artificially and by an afterthought, into the mouth of Bhrgu, a legendary sage and ancestor who wears that character even in the earliest Veda; and finally, by a latest afterthought, Bhrgu is made to proclaim it on behalf of Manu, and under the latter's direction. It is a nameless depiction, put in a Bhrgu-frame, with a Manu-rim about it. If it was really "Manavan" because of its derivation from the Manava-school, there needed no such roundabout process as this to give it title to the name. But if the Manu-rim was tacked on to give additional and clearer reason for what had an underlying reason already, why the intervention of the Bhrgu-frame? It is this intervention that shows most decisively the artificial character of the whole attribution of authorship. For that Bhrgu might be a later intrusion between Manu and his work, as Bradke hesitatingly suggests, appears in the highest degree implausible.

There is, of course, nothing cogent about this reasoning. But it is sufficient to refute the claim now coming to be made as a commonplace by writers on Indian literature, that "Manu's law-book is a metrical version of the dharma-sūtra of the Mānavan school, and has its name from thence," and to remand the question of its origin back to the category of the unknown—where it may, probably enough, always remain. It is very little that we know as to the history of the dharma-çūstras in general; and of this one, not more than of the rest. We know not, for example, how it should have obtained such vogue and consideration (for real authority it does not possess), for which nothing in its character seems a sufficient reason. Perhaps, after all, it was only owing to the name: so that the trick of the last redactors, in calling it Manu's, met with undeservedly great success.

14. Numerical Results from Indexes of Sanskrit Tense- and Conjugation-Stems; by Prof. Whitney.

Professor Whitney reminded the Society that three years ago he called its attention to a plan he had formed, and already partly executed, of giving a full account of the roots found quotable in the Sanskrit literature, with the tense- and conjugation-stems and the primary derivatives made from them, each item being accompanied with a definition of its date in the history of the language; and that he presented a specimen of the work, anticipating its publication within no very long time. In the Proceedings of the meeting in question (at Boston, May, 1882: see the Society's Journal, vol. xi., pp. cxvii.-cxx.) was printed the specimen, with an invitation of suggestions of improvement; and later a somewhat modified specimen was sent out, with a similar invitation; but no response was received from any quarter; so

that the work, which is now all in type and will soon be published (about 250 pages, 8vo: Leipzig, Breitkopf und Härtel; Boston, Ginn & Co.), is carried out on the plan communicated to the Society. seemed altogether desirable to add to it at the end Indexes of stems, which should give an approximate idea (all that can be accomplished by such a method) of the relative importance of each given formation in the entirety of the language; and further, in order to make these Indexes contribute more efficiently to the illustration of its history, the plan was adopted of giving the stems of each formation in three divisions: A. those found to occur only in the older language, of Veda, Brāhmana, and Sūtra; B. those found both in the earlier and in the later language; C. those quotable only from the later language, epic and classical. A conspectus of the numbers of stems of various formation, in these three divisions, was now presented by Professor Whitney, who also pointed out briefly some of the indications derivable from them for the history of Sanskrit.

Of the present-stems, numbering in all 1136, the distribution is found to be as follows:

	A. earlier lang.	B. earlier and later.	C. later lang.	total.
root-class (ad-class, second class)	80	49	14	143
reduplicating class (hu-class, third class)	33	16	0	49
nasal class (rudh-class, seventh class)	16	13	0	29
nu-class (su-class, fifth class)	24	22	4	50
u-class (tan -class, eighth class)	4	4	0	8
$n\bar{a}$ -class ($kr\bar{\imath}$ -class, ninth class)	31	17	5	53
	188	121	23	332
a -class ($bh\bar{u}$ -class, first class)	175	212	142	529
á-class (tud-class, sixth class)	72	53	17	142
ya-class (div -class, fourth class)	41	64	28	133
	288	329	187	804
Totals	476	$\overline{450}$	210	1136

The general facts here presented—as the great superiority in numbers of stems of the second general conjugation (804 to 332), and the almost limitation to it of the stems of late formation (187 to 23)—are familiar ones; also, that, in the first general conjugation, the stems found in the older language alone (188) considerably outnumber those belonging to both the other divisions together (121+23=144), while in the second conjugation this relation is more than reversed (288 to 516).

The accented $y\acute{a}$ -class, or passive stems, and the $\acute{a}ya$ -class, or causative etc. stems, are given further on; since the former, though essentially a present-stem only, becomes allied in history to the secondary conjugations, as having like them a special office.

A. B. C. total.
The perfect-stems have this distribution: 169 191 113 473

Nothing noteworthy appears here, as the perfect is a formation of nearly equal frequency in all periods of the language.

With the agrist-stems, the case is very different, as will appear from the following table:

8	A.	В.	Ç.	total.
root-aorist	112	18	10	140
a-aorist	61	18	7	86
reduplicated aorist	106	18	30	154
s-aorist	99	37	9	145
<i>iş</i> -aorist	136	21	17	174
sis-aorist	10	3	6	19
sa-aorist	14	5	0	19
	538	120	79	737

Of the reduplicated agrists, 6 are made from causative quasi-roots in p; and there are 14 is-agrists from secondary-conjugation-stems (8 desiderative, and 6 causative).

Here is seen especially (as pointed out in some detail a year ago to the Society) the great predominance of the aorist-formation in the earlier language, as compared with the later (more than seven tenths of the stems being found in that division exclusively, not to speak of the much greater frequency of their forms there). Further, the almost sporadic character of the last two forms of aorist—which effectually forbids any originality or importance being attributed to them in the history of aorist formation. The class of a-aorists also appears to be made up in no small part (it may be remarked) of transfers from the root-class.

The statement for the future-stems reads thus:

	A.	В.	C.	total.
s-future without i	46	59	26	131
s-future with <i>i</i> (<i>i</i> ş-future)	44	43	71.	158
periphrastic future (in tar)	18	10	30	58
	108	112	127	347

In the Veda occur only a few futures of the s-formation (about 40), and none of the other. A disproportionate increase of the is-future in later time is noticeable here. From 39 roots are made futures of both the s- and the is-form.

The secondary conjugation-stems are thus distributed:

	A.	В.	C.	total.
passive	37	105	117	259
intensive	105	21	41	167
desiderative	60	49	53	162
causative	111	247	207	565
	313	422	418	1153

The total number of roots from which intensive stems are made is only about 150, there being a number of instances in which more than one stem is made from the same root. Of the desideratives, less than a quarter have the intermediate i before the sibilant; nine roots make stems both with and without the i. The intensive, it will be noticed, is a dwindling formation, while the desiderative is an increasing one.

Both passive and causative, also, grow in frequency, although neither is rare at any period; there are more causative-stems even than (unaccented) a-stems of the present.

The tertiary stems, or derivatives from secondary stems, number as follows:

	A.	в.	C.	total.
passives from desideratives	2	1	8	11
passives from causatives	9	2 8	110	147
desideratives from causatives	12	5	21	38
causatives from intensives	3	0	1	4
causatives from desideratives	0	0	2	2
	26	34	142	202

Most of these, it is seen, are only sporadic formations: exceptions are the desideratives from causatives, which appear in fair numbers (in no small part, it is true, only in derivative noun-stems); and the passives from causatives, which grow rapidly in popularity, so as to be tolerably frequent later.

Finally may be mentioned a few scattering formations:

	A.	В.	C.	total.
3d persons sing. of the passive agrist	47	12	33	92
aorist optatives active	48	5	10	63
aorist optatives middle	54	1	0	55
periphrastic perfects, primary conj'n	8	3	9	20

The active agrist optatives all belong to the root-agrist; just over half of them are made from roots which have no other agrist forms of this formation; only half of them show forms containing the real precativesign, or sibilant interposed between optative mode-sign and ending. The middle forms are from 44 roots; since several roots make more than one stem, and one root (van) even four stems. Less than a quarter of the stems (only 13) make forms containing the true precative s (which is found only in 2d and 3d sing.). From the s-agrist come 18 stems. from the is-aorist come 14: these two constituting the recognized "precative middle" of the Hindu grammarians; but there are also 4 from the sis-aorist, and 15 from the root-aorist, besides the isolated videsta (a-aorist), and 3 reduplicated stems, respecting which one may fairly question whether they belong more to the reduplicated agrist or to the perfect: one of them, rīriṣīṣṭa (Bhāg. Pur.), is the only example known to me of a middle precative in the whole epic and classical literature of the language—and even it is unauthorized by the native grammar.

The "roots" from which verbal forms can be quoted count somewhat over 800; but this includes no very small number of such as are obviously secondary formations, or phonetic variants. or artificial—that is, taken up out of the grammarians' lists and used once or twice. Nearly 500 of these occur in both divisions of the language; about 200 are found only in the earlier period; the remainder (about 130), only in the epic or the classical period, or in both.

15. On Multiform Presents and on Transfers of Conjugation in the Sanskrit Verb System; by Prof. C. R. Lanman, of Cambridge, Mass.

In the Proceedings for October, 1882 (Journal, vol. xi., p. cxxvii.), Professor Bloomfield made an attempt to discover any possible differences of use in the different present systems from the same root in the Veda. The results were mainly negative. Meantime, however, Professor Whitney's book, mentioned in the preceding article, has been put in type. Its collections cover the entire history of the language, in all its periods; and they are arranged in such convenient and altogether admirable order, that a new study of the ample material seems very promising.

So far as Professor Bloomfield's inquiry is concerned, it is indeed doubtful whether any very striking positive results could be reached. But the study of these multiform presents suggests some other questions, whose answers, if attainable, would be interesting and important: What are the general tendencies in the growth of the language as concerns its system of conjugation? What is the extent of the multiform presents?—that is, how commonly do roots form present stems in more than one way? Are there decided tendencies of certain formations to go in pairs?

The foregoing article offers interesting items of answer to the first question. As for the second—out of 800 bona-fide roots of the language, over 112 (14 per cent.) form presents in two ways. The large number of 50 or more form presents in three ways. The roots with four presents number 16, and are is 'seek,' rj, ci 'gather,' trp, $dh\bar{a}$ 'put,' bhr, mad, $m\bar{i}$ 'damage,' mrj, rudh, vac 'be eager,' cam 'labor,' $s\bar{a}$ 'bind,' $s\bar{u}$ 'generate,' stu, and hi. Those with five presents are i, kr 'do,' $ks\bar{i}$ 'destroy,' $d\bar{a}$ 'give,' $dh\bar{u}$, pi 'swell,' pr 'fill,' vr 'cover,' han, and $h\bar{u}$ —ten in all. Finally, the root r forms its present in six different ways (counting rnu and rnva), and tr in seven—or in eight, if we count the sibilant presents. The above are understatements rather than the contrary, sporadic or doubtful doublets being sometimes omitted.

Among the double presents, the a- and ya-classes appear oftenest in combination, namely in 26 verbs, e. g. $t\acute{a}pati$, $t\acute{a}pyati$; next come the a- and \acute{a} -classes, with 18 verbs, e. g. $k\acute{a}rsati$, $krs\acute{a}ti$; then the a- and root-classes, with 15; and last the ya- and root-classes, with 11. The other doublets are miscellaneous and sporadic combinations.

The question, Do differences of function run parallel with differences of form, has, of course, some positive answers which are palpable. Thus, the mode of forming the present with accented $y\dot{a}$ has a perfectly clear function as designation of the passive. The elements characteristic of the intensive and desiderative have also distinct sematologic value, and, in a less degree, those that mark the causative. Of the primary presents, those made with unaccented ya are prevailingly intransitives, denoting a state of feeling or condition of mind or body.

If one were to take up again and extend the inquiry of Professor Bloomfield, now that we have the material so complete and in so accessible form, the first thing to do would be to eliminate from the question such multiform presents as are not original, but simply the result of a secondary transfer from some older to some later method of conjugation (e. g. duhati, from dógdhi duhánti). These for the most part may be regarded as exclusively formal changes. There would then remain a large number of multiform presents of independent formation (e. g. pávate beside punā'ti), where functional differences might be suspected, or at least looked for.

I propose to take this first step here, without going any farther, and to examine and classify these transfer-presents.

These transfers are, with one or two wholly sporadic exceptions, invariably from the first general conjugation to the second. The general direction of the transfers is just what we should expect it to be a priori. As appears from the preceding paper, the stems of the second general conjugation greatly outnumber those of the first (804 to 332), just as the ω -verbs do the μ -verbs, and the "regular" verbs (with ed-preterits) the old "irregular" ones in English. There is always a tendency in language-users to reduce apparent irregularities to a dead level of uniformity. This is exemplified in the little child's I good or runned instead of I went or ran; in the later Attic $\delta \epsilon \iota \kappa \nu \iota \nu \omega$ for the old $\delta \epsilon \iota \kappa \nu \nu \mu$, and even in the Homeric $\delta a \mu \nu \tilde{a}$ ($\delta a \mu \nu a \epsilon \tau \iota$) by the side of $\delta a \mu \nu \eta \sigma \iota$ ($\delta a \mu \nu \eta \tau \iota$). This tendency of the verbs into the second or a-conjugation is entirely parallel to the transfer of the nouns from various consonant declensions into the a-declension, and to the excessively common movement of the same kind in Pāli.

As appears from Professor Whitney's results, given above, the first conjugation holds a much more important place in the earlier language, and loses all its vitality in the later. It would therefore be wholly in keeping with the character of these transfer-forms that they should appear as a rule in later texts than their originals of the first conjugation. And this we find to be the fact.

The indexes show a total of 332 stems of the first general conjugation. Their roots exhibit no less than 81 transfers to the second general conjugation; that is, about a quarter of them do so. By far the largest number of these transfers, 36, are from the root-class; 16 are from the reduplicating, and 13 from the nasal class; 9 from the $n\bar{a}$ -class, and 7 from the nu-class. The transfers are to the a-class and the a-class.

To make the explanation of doublets as transfers possible, there must be some important point or points that coincide in the two series of forms. Thus the old nominative $p\bar{a}d$ makes an acc. $p\bar{a}d$ -am; and corresponding to this ambiguous form, as if it were $p\bar{a}da$ -m, is formed a later nom. $p\bar{a}da$ -s. So in the Veda, dvis inflects dvis-it, is formed in the later language dvis-it, etc. The several classes of transfers I will briefly enumerate, giving first a characteristic form of the old conjugation, then an example of an ambiguous one in brackets, and then a characteristic form of the transfer-conjugation.

Root- to a-class. a. ániti [ánanti] ánati; similarly, vamiti, vamati; çvasıti, çvasati; stanihi, stanati; svapiti, svapati; following their analogy, jakşiti, jakşati; b. roditi [arodat] rodati; c. amīti [amanti and mid.] amate; d. átti [adánti] adasva; chantti [chandanti] chan-

dati; e. eti [subjunc. ayati-te] ayate-ti; çéte [çáye 1s.] çáyate; f. ā'ste [āse] āsate; similarly, īḍate 3p., īḍāmahe; so īrte, īrate 3s.; īṣṭe, īçate; caṣṭe [cakṣe] cakṣate; takṣati 3p. [?] takṣati 3s.; vaṣṭi [avaçam] avaçat; hanti [ahanam] ahanat; çasta açāt [açasam] açasat, 'cut'; so açāt, çāsati, 'orders'; g. [sāmi] santi seyam set are perhaps best regarded as presents to the old aorist asāt, as if this were imperfect. Observe that the accent of svap, an, and çvas wavers. Forms under d might be reckoned to the á-class.

Root-class to á-class. a. ániti [anánti] anáti; similarly, dogdhi, duhet; dveṣṭi, dviṣati; māṛṣṭi, mṛṇati; roditi, rudanti; leḍhi, lihati; vetti, vidati; b. kṣéti [kṣiyánti] kṣiyáti; so bravīti, abruvam; yāuti, yuvati; rāuti, ruvati; sū'te, suváti; stāuti, astuvat; c. hanmi [ghnanti] aghnam.

Reduplicating to a-class. The transitions in this category are among the most interesting. The verbs dadāmi, dadhāmi, and tisthāmi all belong to the redupl. class, as is clear from the Greek. All show secondary a-forms even in the Vedic period, e. g. dada-ti 3s.; but with the first two the process of transfer was not carried out, while with the important tişthāmi it became so complete that no form belonging unquestionably to the hu-class is quotable. Although no hu-class form is quotable for han and hi, yet jighnante and jighyati 3s. are clearly transfers. Here belongs sīdati, if sīdāmi is for sisdāmi. Exactly like the case of tisthāmi are those of jighrāmi and pibāmi, except that here forms of the hu-class are quotable, e. g. pipāná, jighrati 3p. In the later language, bibhyati -anti and jahati -anti coexist beside the older bibheti -yati and jahāti -ati. The forms of both kinds are confined to the Veda in the case of $m\bar{a}$ 'bellow,' $c\bar{a}$, and sac, which make $mim\bar{a}ti$ and mimanti, cicā-ti and cica-nti, sa-cc-ati 3p. and sacca-nti. Sporadic a-forms are found from $d\bar{\imath}$ 'shine,' $dh\bar{\imath}$, and pi—see Whitney, Gram. § 670 ff.

Nu- to á-class. Here belong inoti [invánti] inváti; and so the stems rnvá, cinvá, dunva. On account of the accent, we should expect transfers to the á-class only, not to the a-class; but we find jinó-si jinva-ti, pinv-āte pinva-ti, hino-ti hinva-ti.

Nasal to \acute{a} -class. Since the transfer is from a weak form of the rudh-class— $un\acute{a}tti$ [$und\acute{a}nti$] undati—the transfer-form ought to have the accent on the a and so be referred to the \acute{a} -class. In fact the accent is indeterminate in all cases save, on the one hand, $r\~nj\acute{a}$ and the doubtful $pins\acute{a}$, and, on the other, $t\'u\~nj\~a$ and $pr\'n\~a$. The stems are: $a\~nj\~a$, unda, umbha, chinda, $bhu\~nj\~a$, $yu\~nj\~a$, rundha, pinsa, cinsa, hinsa.

 $N\bar{a}$ - to \dot{a} -class. Here belong the stems $prn\dot{a}$, $mrn\dot{a}$, crna, mina, and the doubtful dhunet (cf. dhuniyat). Professor Whitney reckons $grhn\dot{a}$, $j\bar{a}na$, badhna, and mathna to the a-class: hardly, perhaps, with constraining reason.

The Epos shows the forms dadmi and kurmi, which answer, as singulars of the root-class, to dadmas and kurmas.

Of interest, finally, are the transitions within the aorist-system. Thus beside the series akar-am akar akran, we have akara-t, etc. Many of the simple a-aorists are such transfer-forms. So beside agan, aghas

atan, adhāt, abhūt, etc., we find agamat, aghasat, atanat, adhat, abhuvat, etc.; see Whitney, §847. These aorist stems sometimes serve later as the base of a present system—so gama, voca, sara, cf. asāt.

16. On the Verbs of the so-called tan-class in Sanskrit; by Prof. A. H. Edgren, of Lincoln, Neb.: presented by Prof. Whitney.

Professor Edgren points out that, while the verbs of the su- and tanclasses of the Hindu grammarians are distinguished by the latter as taking respectively nu and u as class-sign, it was suggested already by Bopp that, since all the roots of the tan-class save one themselves end in n, the two classes are virtually one, and may be treated as such. Most later grammarians have been content to reproduce the Hindu classification; but the writer, in his own brief grammar (Trübner & Co., 1885), has ventured to identify the two classes in question, assuming the final nasal of the tan-roots to have been lost before the nasal of the class-sign, in accordance with the theory as to such mutilations put forward and formulated some years ago by Brugman and others (e. g. ta-ta from t'n-ta, with loss of radical a and then conversion of the remaining vocalic nasal to a vowel a). Recently (in the Bulletin de l'Acad. roy. de Belgique, 1880), M. Van den Gheyn, of Antwerp, attempts to show that, out of the nine tan-verbs ending in n, at least seven did not have that nasal originally, it having been artificially transferred from the class-sign to the root; and he proposes to remove in this way the tanverbs to the su-class. The object of this paper is, then, to determine, by examining the inflectional and derivative forms belonging to the roots of the tan-class, and also the kindred words in cognate languages. the true relation of that class to the su-class, and whether any one of the theories referred to above is to be accepted as satisfactory.

Of the ten roots counted to the tan-class by the native grammarians, two are obviously false: viz. rn, with present rnoti, and ksin, with present ksinoti: they are only inflections of the roots r and ksi according to the su-class; and a third, ghrn, is doubtless a similar perversion of ghr—and besides, it never occurs in the language, unless in a few derivatives, as gharma, ghrna, ghrni; the kindred words in related tongues (Zend garema; Gr. $\theta\epsilon\rho$ - $\mu\eta$, $\theta\epsilon\rho$ - $o\varsigma$, etc.; Lat. for-mus etc.; Goth. warm-jan; Sl. gr- e^n -ti; etc.) favor this view of its character. Further, the alleged root trn, 'graze,' is evidently fictitious, made to furnish an etymology for trna, 'grass.'

As regards the five roots $k \ an$, tan, man, van, san, there is every reason to regard their nasal as genuine and original—at least, when their existing inflectional and derivative forms were evolved. It is contained in all their verb-forms, save only the verbal nouns in ta, tva, tya; where, as generally admitted, the root is shortened from loss of accent: for the occurrence of such by-forms as tayate, sisasti, etc., is no more significant than that of jayate beside jan. It is found also in their numerous derivatives, except the stems in ti, which follow the analogy of the participles in ta. Finally, related words in the cognate tongues also have a nasal: e. g. $\kappa tov-oc$; $\tau evv-oc$, ten-do, ten-ax, than-jan; $\mu ev-oc$, mon-eo, ga-mun-an; perhaps ven-us etc. (for san, no kindred

words have been found); and the exceptions (chiefly Greek, as $\tau a - \sigma \iota \varsigma$, ε - τa - $\theta \eta \nu$) are doubtless due to the same causes which have made the Skt. ta-ta etc. While, then, it is past question that the nasal in these roots is no artificial transfer from the class-sign, but really radical, it nevertheless does not follow necessarily that in a tense-stem like tanu the classsign is u only: the significant fact that all the verbs of the class (except kr) end in a nasal drives us to seek another explanation. No instance. it is believed, can be adduced from the whole language of the loss of an initial nasal, or of any other initial consonant, of a suffix or ending; whereas the disappearance of a final nasal of a root or stem before a suffixal consonant is a common occurrence in Sanskrit: e.g. ta-ta, ta $tv\bar{a}$, ta-ti, -ta-tya, ha-tha, -ha-bhis, $r\bar{a}ja$ -bhis, jitva-su, bali-bhyas, etc. etc., for tan-ta etc. There is likewise the same absence of accent from the root in all the forms of this conjugation, which has been seen to be the probable cause of the abbreviation of words like tata; and it shows its effect in the weakening of the root in the forms of the su-class: e. g. str-no-ti from the more original root-form star. Hence it must be regarded as highly probable that ta-no-mi is for tan-no-mi—whether by the direct loss of the n or by its vocalization, is immaterial to the argument.

As regards, finally, the sole remaining root kr, which in the oldest language was conjugated according to the su-class (kr-no-ti etc.), its later tan-inflection is entirely anomalous: it may be that the very frequent use of this verb made it susceptible in some way to modification by dialectic or other influences. At any rate, it cannot be made to form all alone a separate verb-class.

The general result appears to be, that, of the list of ten roots that have been reckoned to the tan-class, four must be struck off as fictitious, five transferred to the su-class as regular, and one as irregular; and that in this way the tan-class will disappear entirely.

Professor Whitney said that, while he agreed with the author in rejecting Van den Gheyn's view, and regarding the derivation of tanomi from tan-nomi as not impossible, he yet was unwilling to accept this latter process as proved, so long as it remains so questionable what the original character of the nu is, and as other instances of the loss of n before n are not found. If, for example, the class-sign is ultimately a noun-suffix, nu and u might be possible side by side, like the elements from which are made the gerunds -crutya and - $bh\bar{u}ya$ respectively. The modification of krnu into kuru is not easily accounted for; and there are other indications of the addition of u to a radical final r in Sanskrit, in the roots (doubtless of secondary origin) ending in rv, as well as in the RV. form tarute from root tr. It may be added that in hanomi (Pārask. Gṛh. Sū. i. 3. 27) we have another sporadic example of a tan-form, but one of very questionable value.

17. On a Sanskrit Manuscript of a Hindu Treatise on Logic, the Nyāya-siddhānta-mañjarī; by Prof. Lanman.

Just after our last October meeting, I received, through the kindness of Professor Isaac H. Hall, a MS. of the above-named work, now in my

possession. Dr. Hall bought it at a shop in Philadelphia, Penn.; but the vendor did not know where it came from. On the inside of the cover, however, are the words: "J. Jay Joyce, Jr.; presented by Rev. Prof. Banerja, Calcutta; through kindness of the Rev. S. E. Appleton."

This MS. of the 'Garland of the Doctrines of the Nyāya' is about 200 years old. It is an excellent MS., clearly written in $n\bar{a}gar\bar{\imath}$ on 39 leaves, $9\frac{1}{4}\times 3\frac{1}{2}$ inches in size. The outside page of the first leaf and of the last is blank. There are from nine to eleven lines on a page. Each line contains about twice as much as a line of our Journal, so that an edition of the text would require about 30 Journal pages.

It begins:

praṇamya paramātmānam jānakīnāthaçarmaṇā kriyate yuktimuktābhir nyāyasiddhāntamañjarī.

iha kila nikkilalokavimokṣamukhyopāyam mananopāyam ātmanas tattvajñānam āmananti; tac ca pramāṇādhīnam iti pramāṇam nirūpyate. tatra pramāyāḥ karaṇam pramāṇam. pramā ca yathārthānubhavaḥ. tad āhur ūcāryāḥ. yathārthānubhavo mānam iti. nanu kim idam yāthārthyam? kim cānubhavatvam? ucyate: etc.

It ends:

jūānasya samnikarse kim mānam iti cet ; rajatatvaprakārakapratyakṣam ity avehi. tatrāiva kim mānam iti cet ; tatprakārikā pravṛttir iti samkṣepaḥ.

The colophon reads:

iti çrī-bhaṭṭācārya-cūḍāmaṇi-viracitā nyāyasiddhāntamañjarī samāptim agamat samvat 1754 çake 1619 māghe māsi çuklapakṣe aṣṭamyām ravivāsare sutāropa[nā f]mnā anantena likhitam idam pustam mañjaryāḥ parārtham svārtham ca.

That is: 'The Nyāyasiddhāntamañjarī, composed by Çrī Bhatṭācārya Cūḍāmaṇi [an epithet of Jānakīnāthaçarman], is ended; on a Sunday, the eighth day of the bright lunar fortnight of the month Māgha, A. D. 1697: this MS. of the Mañjarī was written by Ananta, whose surname [?] was Sutāra, for the use of others and of himself.' Māgha begins with the winter solstice.

MSS. of this work are not infrequent. Burnell, Skt. MSS. in the Palace at Tanjore, p. 119a, cites one beginning as above. He adds that the work is little studied in South India. Bhandarkar, in his Bombay Report for 1882–3, p. 115, mentions two and a commentary. Lewis Rice, Cat. of Skt. MSS. in Mysore and Coorg, 1884, p. 114, mentions three, and a fourth ascribed to Golāṭa Bhāskara. Fitzedward Hall, Bibliography of the Indian Philosophical Systems, p. 24, mentions three, one very correct. Aufrecht mentions a part of one as among the Bodleian MSS., p. 240a. Weber mentions a part of a commentary to the work in the Berlin Catalogue, 1853, no. 699. The work is an elementary one; but it might well be worth editing.

The following paper was not received until after the Society's adjournment, but, by the author's desire, it is included in the Proceedings of this meeting.

18. On some Vedic Derivatives of the root prac, 'ask,' hitherto misunderstood; by Prof. M. Bloomfield, of Baltimore, Md.

The root prach or prch, 'ask,' as is well known, is a secondary form: to wit, a part of the stem of an inchoative present, pr[c]-cha-ti, transferred in use to a verb-formation outside the primary present-system, i. e. to the perfect, paprácha; to the verbals, -prchya, -pr'cham, -pr'che; to the passive, prchyáte; and further to the derivatives, prāch-, prchā, pṛchaka, pṛ'chya, and pipṛchiṣu. Most of the remaining forms and derivatives, áprāt, áprākṣīt, pṛṣṭá, práṣṭum, prakṣyati, pṛṣṭvā, praṣṭavya, prastr, may be referred to either form of the root, to prac or to prach; but for those belonging to the oldest dialect, notably for aprat and aprāksīt, a reference to prac is preferable (cf. Whitney, Skt. Gr., § 220). Finally, for the original form prac, the Vedic prac-na, 'question, debate,' gives unmistakable testimony, to say nothing of the evidence of the related languages.

I believe that there are three other Vedic words which are certainly derivatives of prac, 'ask,' though they have hitherto been misunderstood. These are:

- 1. $pr\bar{a}'c$, 'debate, dispute;'
- 2. prátiprāc, 'opponent, one disputing against another;'
- 3. pratiprācita, 'one assailed in debate,' or, simply, 'opponent.'

These words occur in an exorcism addressed to the pāṭā-plant, Atharva-Veda ii. 27. Verses 2-6 do not affect the question here in hand; I therefore quote only the first and last.

- 1. néc chátruh prā'çam jayāti sáhamānā 'bhibhū'r asi: arasā'n krnv osadhe. prā'çam prátiprāço jāhy 7. tásya prā'çam tvám jahi yó na indrā 'bhidā'sati:
- ádhi no brūhi cáktibhih prāçi mā'm úttaram kṛdhi.

The hymn has been translated by Weber, 1873, Indische Studien, xiii. 190; by Ludwig, 1878, Der Rig-veda, iii. 461; and by Grill, 1879, Hundert Lieder des Atharva-veda, p. 18. All three derive the words prā'ç and prátiprāc from the root aç, 'eat,' with pra, and regard the hymn accordingly as an incantation against robbers of provisions, pronounced in order to protect granaries and store-rooms. The renderings of the above-quoted verses by Weber, Ludwig, and Grill, respectively, are as follows:

- 1. Dass mir die Vorräthe der Feind nicht raub'! sieghaft du, mächtig bist! Schlag' fort, die mir die Vorräthe schäd'gen, mach' kraftlos sie, o Kraut!
- 7. Vernichte dessen Vorräthe o Indra! der uns feindet an. Segne mit deinen Kräften uns! lass in Vorräth'n mich oben stehn!
- 1. Nicht der feind soll genusz von speise erlangen; überwältigend, sigerin bist du; | den genusz des genuszfeindlichen schlage, mach ihn saftlos [arasā'm], o kraut.

- 7. Dessen genusz von speise vernichte, der o fürst uns anfeindet, segne uns mit deinen kräften; an genusz mach mich zum höchsten.
 - Der Feind raub nicht die Zehrung uns; du bist ja mächtig, überstark;
 Wer uns die Zehrung vorwegzehrt, dem nimm, o Kraut, die Lebenskraft!
 - Den Vorrath, Indra, schlage dem in Boden, der uns feindlich ist;
 Durch Machterweise sprich uns zu, den reichsten Vorrath schenke mir!

These translations entirely miss the point of the hymn. It has nothing to do with provisions or granaries. It is rather a charm uttered by an intending disputant before entering upon a debate in the $sabh\bar{a}$ or parisad, the assembly of the village, and addressed to the $p\bar{a}t\bar{a}$ -plant. I render:

- 1. May the enemy not win the debate. Thou art mighty and overpowering. Overcome the debate of [each one] who debates against us. Render them stupid, O plant.
- 7. Overcome thou the debate of the one who is hostile to us, O Indra. Encourage us with thy might. Render me superior in dispute.

The general interpretation and this translation are suggested by the Kāuçika-sūtra, xxxviii. 17 ff. Sūtra 17 reads: iyam vīrud iti madugham khādann aparājitāt pariṣadam āvrajati, 'With the hymn, 'This plant' [AV. i. 34], he approaches the assembly from the northeast, while chewing honey-plant.' The commentator Dārila, explains the purpose of the ceremony: pūrvottare* koṇāt pariṣadam āgacchati: janasamūham jyeṣṭī* madhukam* bhakṣayan* āvrajane mantrah. . . . pratyarthajapadoṣaçamanam prāyaçcittam, 'He approaches the assembly from the northeast: namely, the eldest [chieftain] approaches the crowd, reciting the charm while approaching. This is a prāyaçcitta-ceremony, which counteracts the harm arising from hostile whisperings [i. e. the recitation of hostile incantations].' The hymn i. 34 is employed because it contains the praise of the persuasive madugha.

The next passage, Sūtra 18 ff., rubricates our hymn ii. 27, cited above. 18. nec chatrur iti pratiprāçitam: 19. anvāha: 20. badhnāti: 21. mā-lām saptapalāçīm dhārayati. The translation, along with the bracketed commentary, is as follows: 18. 'With the charm, 'May the enemy not" [he approaches] the one against whom the debate is directed [from the northeast, while chewing pāṭā-root].' 19. He addresses with the charm [his opponent].' 20. 'He binds [the pāṭā-roots together].' 21. 'He carries a pāṭā-garland containing seven leaves.' Dārila's words are: to 18, pāṭāmūlam khādann aparājitāt pratiprācitam āvrajati: to 19, prativādinam anvāha; to 21, pāṭhā*-srajam parnām* bibharti sarvasya dhāranasya bāhāu bandhamantralingāt. For the last, cf. verse 3 of ii. 27.

From all this, it is perfectly clear that the rite is one which takes place

^{*} I have starred words whose reading is evidently faulty.

in the parisad or communal assembly, and that the scholiast's prativādinam, 'opponent in dispute,' is a gloss to pratiprāçitam. This last is accordingly a quasi-denominative participle from pratiprāç, 'debateragainst' (Whitney, Grammar, 1176b), and means 'debated against.'

The word prāç occurs once in the Kāuçika-text proper, xxxviii. 24, and with the same meaning, 'dispute.' The passage is: 23. brahma jajñānam ity adhyāyān upākarısyann abhivyāhārayati: 24. prāçam ākhyāsyan: 25. brahmodyam vadisyan. Dārila's comments are: to 23, upākarmasu çisyān abhivyāhārayati sūktam: kalahaparihāra*dosanāçāt prāyaçcittatvam; to 24, pratipraçnam kathayisyan sūktam abhivyāhārayati: . . . prativādino jayapanāç↠prāyaçcittatvam; to 25, vedavākyavicāram‡ kathayisyan pratyarthinā saha prativādino japanāçāt prāyaçcittatvam.

The text, supplemented by the comment, may be paraphrased as follows: 'When the teacher is about to begin the reading of the Veda, he lets the pupils recite the hymn AV. iv. 1. When about to present to them a disputed question, he lets them recite the same hymn. Or when discussing with an opponent the meaning of Vedic sentences, he lets them recite the same hymn.'

After the presentation of communications was finished, a vote of thanks to the American Academy for the use of its Library was passed, and the Society adjourned, to meet in New York in October.

^{*} Read parihāsa? † Read japanāçāt.

[‡] See PW. under mahāvāya.